Yingshi Huang

CONTACT INFORMATION
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EDUCATION

University of California, Los Angeles (UCLA), California, United States
Ph.D. in Education — Sep. 2023 - Present
M.S. in Statistics & Data Science — Sep. 2024 - Present

- Research Interest: Latent space model; Network analysis; Time-series data
- Advisor: Prof. Minjeong Jeon

Beijing Normal University, Beijing, China
M.A. in Psychology — Sep. 2020 – Jun. 2023

- Thesis: *A Cognitive Diagnosis Model for Insufficient Responses Detection*
- Advisor: Prof. Ping Chen

South China Normal University, Guangzhou, China
B.S. in Psychology — Sep. 2016 – Jun. 2020

- Thesis (with honors): *Classification Accuracy and Consistency under Different Maximum Information Locations*
- Advisor: Prof. Minqiang Zhang

PUBLICATIONS

(* correspondent author, + co-first author)

Educational and Psychological Measurement

1. Chen, P.*, Dai, Y., **Huang, Y.** (2023). Test mode effect: Sources, detection, and applications (in Chinese). *Advances in Psychological Science*, *31*(10), 1966–1980. doi: 10.3724/SP.J.1042.2023.01966
2. Yuan, L., **Huang, Y.**, Li, S., & Chen, P.* (2023). Online calibration in multidimensional computerized adaptive testing with polytomously scored items. *Journal of Educational Measurement*, *60*(3), 476-500. doi: 10.1111/jedm.12353.
3. **Huang, Y.**, Ren, H., & Chen, P.* (2023). Item selection methods with exposure and time control for computerized classification test. *British Journal of Mathematical and Statistical Psychology*, *76*, 52–68. doi: 10.1111/bmsp.12281.
4. Ren, H., **Huang, Y.**, & Chen, P.* (2022). Types, characteristics and application of termination rules in computerized classification testing (in Chinese). *Advances in Psychological Science*, *30*(5), 1168. doi: 10.3724/SP.J.1042.2022.01168.
5. Sun, X., **Huang, Y.**, & Song, N.* (under review) Estimating the Q-matrix for cognitive diagnostic models: Based on partial known q-entries.
6. Yuan, L., **Huang, Y.**, & Chen, P.* (under review) Online calibration for multidimensional CAT with polytomously scored items: A neural network based approach.

Substantive Topics

1. Lu, A.*+, Deng, R.+, **Huang, Y.+**, Song, T., Shen, Y., Fan, Z., & Zhang, J. (2022). The roles of mobile app perceived usefulness and perceived ease of use in app-based Chinese and English learning flow and satisfaction. *Education and Information Technologies*, 1-22. doi: 10.1007/s10639-022-11036-1.
2. Ni, Y., Tein, J. Y., Zhang, M.*, Zhen, F., Huang, F., **Huang, Y.**, Yao, Y., & Mei, J. (2020). The need to belong: A parallel process latent growth curve model of late life negative affect and cognitive function. *Archives of Gerontology and Geriatrics*, *89*, 104049. doi: 10.1016/j.archger.2020.104049.

Select Conference Presentations

1. **Huang, Y.**, Wang, S., Pan, Y., Lu, X., & Chen, P. (2024, April) *A motivation-based cognitive diagnostic model for insufficient responses detection*. Talk presented at the Annual Meeting of the National Council on Measurement in Education, Philadelphia, PA.
2. Yuan, L., **Huang, Y.**, & Chen, P. (2023, July). *Online calibration for P-MCAT: A neural network based approach*. Talk presented at the International Meeting of the Psychometric Society, College Park, Maryland.
3. **Huang, Y.**, Zhang, T., & Chen, P. (2022, July). *Exploring the structure of speed in cognitive diagnostic models*. Poster presented at the International Meeting of the Psychometric Society, Bologna, Italy.
4. Zhang, T., **Huang, Y.**, & Xin, T. (2022, July). *An analysis of adaptive learning recommendation based on reinforcement learning*. Poster presented at the International Meeting of the Psychometric Society, Bologna, Italy.
5. **Huang, Y.**, Ren, H., & Chen, P. (2022, April). *New item selection designs for computerized classification test*. Flash Talk presented at the Annual Meeting of the National Council on Measurement in Education, San Diego, CA, Virtual Meeting.

Select Funded Grants

2021 Independent Project (Grant No. BJZK-2020A2-20011). **PI**
Item Selection Methods for Computerized Classification Testing 2021 – 2022
Funded by Collaborative Innovation Center of Assessment for Basic Education Quality $1,000

2020 National Natural Science Foundation of China (Grant No. 32071092). **Participant**
Online Calibration in Computerized Adaptive Testing: New Challenges and Solutions 2021 – 2024
Funded by National Natural Science Foundation of China $90,000

2019 Extracurricular Research Project (Grant No. 19XLGA01). **PI**
High Quality of Teacher-Student Relationships Promotes Mathematics Achievement of Junior High School Students: The Multiple Mediation Effect 2019 – 2020
Funded by South China Normal University $500

2018 Special Funds for Seed Breeding Program (Grant No. 18XLGA07). **Co-PI**
Second Language Learning through Mobile Devices: The Effect of Perceived Usefulness, Perceived Ease of Use, and Flow Experience 2018 – 2019
Funded by South China Normal University $500

Research Experience

Jeon lab, Los Angeles, United States
Graduate Student Researcher Dec. 2023 – Present
Prof. Minjeong Jeon's lab centers on developing, applying, and estimating various latent variable models for studying measurement and growth

- analyzing the NIH-supported annual mHealth Training project with TERGMs
- developing longitudinal latent process model with multiple learning targets

National Assessment Center for Key Technologies, Beijing, China
Research Assistant Sep. 2020 – Jun. 2023
Prof. Ping Chen's lab focuses on building and developing more effective and efficient algorithms for parameter estimation and adaptive testing

- Assisted in writing grant proposals and revising three graduates' theses
- Designed and conducted studies introducing new item selection methods, online calibration designs, and a motivation-based cognitive diagnosis model
- Helped manage the pretesting of items for the National Assessment

National Assessment Guangdong Sub-Center for Item Bank Construction, Guangzhou, China
Research Assistant Sep. 2017 – Jun. 2020
Prof. Minqiang Zhang's lab studies the validity of new Verbal and Mathematics item formats, the

score reports system, and test equating in China's College Entrance Examination

- Contributed to the revision of the Test Quality Analysis Report (Mathematics) of China's College Entrance Examination
- Assisted with the implementation of the Guangzhou Sunshine education evaluation project and helped write the survey report
- Designed a study on how students' mathematics performance is affected by the quality of the teacher-student relationship, analyzed data from 3,997 students, and led a funded grant

Guangdong Key Laboratory of Mental Health and Cognitive Science, Guangzhou, China
Data Analysis Research Assistant Oct. 2018 – May. 2019
Prof. Aitao Lu's lab studies the mechanism of language acquisition and how human brains execute language processing

- Designed and conducted studies investigating app-based second-language learning, especially for Chinese and English learners
- Collected 786 questionnaires and analyzed the data with latent profile analysis, hierarchical regression, structural equation modeling, and network analysis

Teaching Experience

Beijing Normal University, Beijing, China
Teaching Assistant Sep. 2021 – Jan. 2022
Adaptive testing and diagnostic adaptive assessment (graduate course)

- Presented two lectures that introduced R language to 40 students
- Held weekly office hours and provided instant feedback on students' presentations

Beijing Normal University, Beijing, China
Teaching Assistant Feb. 2021 – Jun. 2021
Think and act like a psychometrician (undergraduate course)

- Assisted in the development of the curriculum and assignments
- Provided assistance with statistics and Visual Basic programming

Skills

- **Analytical:** Proficient in R, M*plus*, SPSS, HLM, latentGOLD; Capable of Python and Conquest
- **Design:** Photoshop, HTML, LaTeX, Unity

Select Honors and Awards

Gordon & Olga Smith Scholarship, UCLA	2023
Graduate Dean's Scholar Award, UCLA	2023
Outstanding Graduates of Beijing, Beijing Municipal Education Commission	2023
Outstanding Graduates, Beijing Normal University	2023
National Scholarship, Minister of Education of China	2022
First-class Academic Scholarship, Beijing Normal University	2021
Second-class Comprehensive Scholarship, South China Normal University	2017 - 2018

Administrative and Other Experience

Team Leader & Psychology Teacher, Shenzhen Hongling Middle School 2019
Organized mental health assessment for 696 students, taught 25 courses, and provided psychological counselling to 36 students (Awarded as Excellent Team Leader)

Vice Chairman, The Business Pioneering Camp 2018 – 2019
Planned and organized business competitions, trained new members, and managed the budget (Awarded as Outstanding Student Leader)

Reviewer Experience:
American Educational Research Association (AERA) Annual Meeting 2024 Aug. 2023

Volunteer Experience:
Devoted to supporting education at the Wanzi Primary School in Meizhou, an undeveloped county in Southeast China (Awarded as Advanced Individual) [Program Web] Aug. 2017

Workshop:
Machine Learning, Natural Language Processing, and their Application in Educational Assessment (Virtual), University of Maryland Nov. 2022