

Yingshi Huang

CONTACT INFORMATION

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<https://quantithinker-yingshi.github.io/>

EDUCATION

Beijing Normal University, Beijing, China

M.A. in Psychology, GPA: 3.9/4.0

Sep. 2020 – Present

- Thesis (in preparation): *A Cognitive Diagnosis Model for Insufficient Responses Detection*
- Advisor: Prof. Ping Chen
- Core Courses: Advanced Psychological Statistics, Multivariate Statistics, Big Data Machine Learning, and Python Language Programme Design

South China Normal University, Guangzhou, China

B.S. in Psychology, GPA: 3.96/5.0

Sep. 2016 – Jun. 2020

- Thesis (with honors): *Classification Accuracy and Consistency under Different Maximum Information Locations*
- Advisor: Prof. Minqiang Zhang
- Core Courses: Advanced Mathematics, Psychological Statistics and SPSS Software, Principle of Psychological Measurement, Developmental Psychology, and Behavior Neuroscience

SKILLS

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

PUBLICATIONS

(* correspondent author, + co-first author)

Topic 1: Computerized Adapted Testing and Process Data

1. **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](https://doi.org/10.1111/bmsp.12281).
2. 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/SPJ.1042.2022.01168](https://doi.org/10.3724/SPJ.1042.2022.01168).
3. Yuan, L., **Huang, Y.**, Li, S., & Chen, P.* (published online). Online calibration in multidimensional computerized adaptive testing with polytomously scored items. *Journal of Educational Measurement*. doi: [10.1111/jedm.12353](https://doi.org/10.1111/jedm.12353).

Topic 2: Second Language Acquisition (English and Chinese learning)

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](https://doi.org/10.1007/s10639-022-11036-1).
2. **Huang, Y.**+, Deng, R.+, Lu, A.*+, Li, Y., & He, J. (under review). How user perception affects app-based second language learning flow and satisfaction: a mediated moderating model and network analysis.

Topic 3: Late Life Negative Affect and Cognitive Function

1. 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](https://doi.org/10.1016/j.archger.2020.104049).

SELECT
CONFERENCE
PRESENTATIONS

1. **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.
2. 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.
3. **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.
4. Ni, Y., **Huang, Y.,** & Zhang, M. (2018, November). *Subtypes of longitudinal association between late life cognitive function and negative affect: a parallel progress growth mixture model*. Talk presented at the 21st National Academic Conference of Psychology, Beijing.

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

- National Assessment Center for Key Technologies, Beijing, China**
Research Assistant Sep. 2020 – Present
 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
 - Responsible for updating financial documents and budgets
 - 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
 - Completed an honors thesis and assisted in supervising five undergraduates

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
- Co-project leader for a funded grant and an academic competition (Awarded a second prize), completed two papers with one published and one under review

TEACHING
EXPERIENCE

Beijing Normal University, Beijing, China

Teaching Assistant

Sep. 2021 – Jan. 2022

Adaptive testing and diagnostic adaptive assessment (graduate course; Instructor: Prof. Ping Chen)

- Presented two lectures that introduced **R language** to 40 students
- Held weekly office hours and provided instant feedback on students' presentations
- Graded assigned homework and final projects

Beijing Normal University, Beijing, China

Teaching Assistant

Feb. 2021 – Jun. 2021

Think and act like a psychometrician (undergraduate course; Instructor: Prof. Ping Chen)

- Assisted in the development of the curriculum and assignments
- Held weekly office hours and graded assigned homework
- Provided assistance with statistics and Visual Basic programming

SELECT HONORS
AND AWARDS

China National Scholarship (The highest honor for graduate students) 2022

First-class Academic Scholarship, Beijing Normal University 2021

Second Prize for Excellent Scientific Writing, South China Normal University 2019

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)

Campus Ambassador, UC Browser of Alibaba Group 2017 – 2018

Held information sessions and activities to foster students' career plans

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