

# Yingshi Huang

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## CONTACT INFORMATION

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

## EDUCATION

**Beijing Normal University**, Beijing, China

M.Ed. 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

## PUBLICATIONS

(\* correspondent author, + co-first author)

### Topic 1: Computerized Adapted Testing and Process Data

1. **Huang, Y.**, Ren, H., & Chen, P.\* (2022). **Item selection methods with exposure and time control for computerized classification test**. *British Journal of Mathematical and Statistical Psychology*, 00, 1–17. doi: 10.1111/bmsp.12281. [2021 IF: 2.410]
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/SP.J.1042.2022.01168. [2021 IF: 2.877]
3. Yuan, L., **Huang, Y.**, Li, S., & Chen, P.\* (under second-round review). Online calibration in multidimensional computerized adaptive testing with polytomously scored items. *Journal of Educational Measurement*. [2021 IF: 1.188]

### 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. [2021 IF: 3.666]
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. [2021 IF: 4.163]

SELECTED  
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.

RESEARCH  
EXPERIENCE

**National Assessment Center for Advanced Methods, 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 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, score reports system, and test equating in China's College Entrance Examination

- Contributed to revising the Test Quality Analysis Report (Mathematics) of China's College Entrance Examination
- 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 fund grant
- Assisted with the development of questionnaires for the Police Office in Heyuan and helped with writing the survey report
- 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, structure equation model, and network analysis
- Co-project leader for a fund grant and a challenge cup project (Awarded a second prize), completed two papers with one published and one under review

SELECTED 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

	<b>2020 National Natural Science Foundation of China (Grant No. 32071092).</b> <i>Online Calibration in Computerized Adaptive Testing: New Challenges and Solutions</i> Funded by National Natural Science Foundation of China	<b>Participant</b> 2021 – 2024 \$90,000
	<b>2019 Extracurricular Research Project (Grant No. 19XLGA01).</b> <i>High Quality of Teacher-Student Relationships Promotes Mathematics Achievement of Junior High School Students: The Multiple Mediation Effect</i> Funded by South China Normal University	<b>PI</b> 2019 – 2020 \$500
	<b>2018 Special Funds for Seed Breeding Program (Grant No. 18XLGA07).</b> <i>Second Language Learning through Mobile Devices: The Effect of Perceived Usefulness, Perceived Ease of Use, and Flow Experience</i> Funded by South China Normal University	<b>Co-PI</b> 2018 – 2019 \$500
TEACHING EXPERIENCE	<b>Beijing Normal University, Beijing, China</b> <i>Teaching Assistant</i> Adaptive testing and diagnostic adaptive assessment (graduate course; Instructor: Prof. Ping Chen) <ul style="list-style-type: none"> <li>Presented two lectures introducing R language</li> <li>Held weekly office hours and provided instant feedback for students' presentations</li> <li>Graded assigned homework and the final project</li> </ul>	Sep. 2021 – Jan. 2022
	<b>Beijing Normal University, Beijing, China</b> <i>Teaching Assistant</i> Think and act like a psychometrician (undergraduate course; Instructor: Prof. Ping Chen) <ul style="list-style-type: none"> <li>Assisted in the development of the curriculum and the assignments</li> <li>Held weekly office hours and graded assigned homework</li> <li>Provided assistance with statistics and Visual Basic programming</li> </ul>	Feb. 2021 – Jun. 2021
RELEVANT SKILLS	<ul style="list-style-type: none"> <li><b>Analytical:</b> Proficient in R, <i>Mplus</i>, SPSS, HLM, latentGOLD; Capable of Python and Conquest.</li> <li><b>Design:</b> Photoshop, HTML, <math>\text{\LaTeX}</math>, Unity.</li> <li><b>Languages:</b> Chinese (native), English (fluent).</li> </ul>	
SELECTED HONORS AND AWARDS	First-class Academic Scholarship, Beijing Normal University Second Prize for Excellent Scientific Writing, South China Normal University Second-class Comprehensive Scholarship, South China Normal University Excellent New Students Award (Top 3%), South China Normal University	2021 2019 2018 2016
ADDITIONAL EXPERIENCE	<b>Internship:</b> Worked as a psychology teacher in Shenzhen Hongling Middle School, organized mental health assessment for 696 students, offered 25 courses, and provided psychological counselling to 36 students (Awarded as Excellent Team Leader, 2019). <b>Volunteer Experience:</b> Devoted to supporting education in Wanzi Primary School of Meizhou, a remote county in south-east China (Awarded as Advanced Individual, 2017). <b>Extracurricular Activities:</b> The Business Pioneering Camp (Vice Chairman, 2018 – 2019); Campus Ambassador for UC Browser of Alibaba Group (2017 – 2018).	