SHIYU WANG

325N Aderhold Hall, University of Georgia ⋄ Athens, GA 30602

swang44@uga.edu

EDUCATION

University of Illinois at Urbana Champaign August 2011 – May 2016
Ph.D. *Statistics*

Beijing Normal University, China September 2007 – June 2011
B.S. *Statistics, School of Mathematical Science*

ACADEMIC POSITION

The University of Georgia August 2021 – Present
Associate Professor, Department of Educational Psychology

The University of Georgia August 2016 – 2021
Assistant Professor, Department of Educational Psychology

The University of Georgia August 2017 – Present
Courtesy Faculty, Department of Statistics

OTHER POSITIONS

The University of Georgia June 2022 – Present
Area Chair, Quantitative Methodology Program, Department of Educational Psychology

RESEARCH INTERESTS

- Adaptive Designs, including Computerized Adaptive Testing and Multistage Adaptive Testing.
- Modeling test-taking/learning process and behaviors using complex multimodal data data from virtual testing/learning environment, including response times, log data and textual responses.
- Latent Variable Modeling, including Item Response Theory and Cognitive Diagnostic Modeling.
- Educational Statistics and Psychometrics

PUBLICATIONS

Peer-reviewed Journal Articles

∗ indicates supervisory role of a graduate student as co-autors

Wheeler, J. ∗, Cohen, A., & **Wang, S,** (In press) A comparison of latent semantic analysis and latent Dirichlet Allocation in Educational Measurement. *Journal of Educational and Behavioral Statistics.*

Shen, Y ∗ & **Wang, S.** (in press) Exploring testing and learning behaviors. *Measurement: Interdisciplinary Research and Perspectives.*

Zhang, S., Li, A.∗, & **Wang, S.** (2023) Exploration of Latent Structure in Test Review and Revision Log Data. *Educational Measurement: Issues and Practice.*

Chen, Y. and **Wang, S.** (2023) Bayesian Estimation of Attribute Hierarchy for Cognitive Diagnosis Models. *Journal of Educational Behavioral Statistics.*

Mardones-Segovia, C., Wheeler, J. M., Choi, H. J., **Wang, S.**, & Cohen, A. S. (2023). Model selection for latent Dirichlet allocation in assessment data. Psychological Test and Assessment Modeling, 65(1), 3-35.

Zhan, P., Chen, Q.*, **Wang, S.**, Zhang, X. (2023). Longitudinal joint modeling for assessing parallel interactive development of latent ability and processing speed using responses and response times. *Behavior Research Methods*, 1-22.

Xiao, H. and **Wang, S.** (2022) A Joint Maximum Likelihood Estimation Framework for Truth Discovery: A Unified Perspective. *IEEE Transactions on Knowledge and Data Engineering. Published early online.*

Xiao, H., and **Wang, S.** (2022) Toward Quality of Information Aware Distributed Machine Learning. *ACM Transactions on Knowledge Discovery from Data (TKDD), 16(6), 1-28.*

Xu, L.*, **Wang, S.**, Cai, Y., & Tu, D. (2021). The Automatic Test Assembly and Routing Rule for Multistage Adaptive Testing with Multidimensional Item Response Theory. *Journal of Educational Measurement*, 58(4): 538-563. https://doi.org/10.1111/jedm.12305

Wang, S., Xiao, H., & Cohen, A.(2021), Adaptive Weight Estimation of Latent Ability: Application to Computerized Adaptive Testing with Response Revision. *Journal of Educational and Behavioral Statistics*, 46(5).

Bao, Y.* Shen, Y.*, **Wang, S.** & Bradshaw, L. (2021). Flexible Computerized Adaptive Tests to Detect Misconceptions and Estimate Ability Simultaneously. *Applied Psychological Measurement*, 45(1), 3-21.

Wang, S., Chen, Y. (2020). Using Response Times and Response Accuracy to Measure Fluency Within Cognitive Diagnosis Models. *Psychometrika*, 85(3), 600-629.

Wang, S., Hu, Y., Wang, Q *., Wu, B., Shen, Y. *, & Carr, M. (2020) The Development of a Multidimensional Diagnostic Assessment with Learning Tools to improve 3-D Mental Rotation Skills.*Fronteier in Psychology*,11.

Wang, S., Zhang, S., Shen, Y*. (2020). A joint modeling framework of responses and response times to assess learning outcomes. *Multivariate behavioral research*, 55(1), 49-68.

Wang, S., Fellouris, G. & Chang, H. (2019) Statistical Foundations for Computerized Adaptive Testing that Allows for Response Revision. *Psychometrika*, 84(2), 375-394

Tu, D., **Wang, S.**, Cai, Y., Douglas, J. & Chang, H. (2019). Cognitive Diagnostic Models with Attribute Hierarchies: Model Estimation with a Restricted Q matrix Design. *Applied psychological measurement*, 43(4), 255-271.

Zhang, S*.& **Wang, S.** (2018) Modeling Learner Heterogeneity: A Mixture Learning Model with Responses and Response Times. *Frontiers in Psychology*, 9,2339.

Wang, S., Zhang, S., Douglas, J.,& Culpepper, S.(2018). Using Response Times to Assess Learning Progress: A joint model for responses and response times. *Measurement: Interdisciplinary Research and Perspectives*, 16(1), 45-58.

Wang, S.(2018). The Two-Stage Maximum Likelihood Estimation in Misspecified Restricted Latent Class Model. *British Journal of Mathematical and Statistical Psychology*,71(2), 300-333.

Wang, S., Yang, Y., Culpepper, S., & Douglas, J.. (2018). Tracking skill acquisition with cognitive diagnosis models: A higher-order hidden Markov model with covariates. *Journal of Educational and Behavioral Statistics*,43(1), 57-87.

Chen, Y., Culpepper, S.A., **Wang, S.** and Douglas, J. A. (2018). A hidden Markov model for learning trajectories in cognitive diagnosis with application to spatial rotation skills. *Applied Psychological Measurement*,42(1), 5-23.

Wang, S., Fellouris, G. & Chang, H. (2017). Computerized Adaptive Testing that Allows for Response Revision: Design and Asymptotic Theory. *Statistica Sinica*, 27, 1987-2010.

Wang, S., Zheng, Y., Zheng, C., Su, Y. H., & Li, P. (2016). An Automated Test Assembly Design for a Large-Scale Chinese Proficiency Test. *Applied Psychological Measurement*, 40(3), 233-237.

Wang, S., Lin, H., Chang, H. , & Douglas, J. (2016). Hybrid Computerized Adaptive Testing: From Group Sequential Design to Fully Sequential Design. *Journal of Educational Measurement*, 53(1), 45-62.

Wang, S. & Douglas, J.A. (2015). Consistency of Nonparametric Classification in Cognitive Diagnosis. *Psychometrika*, 80(1), 85-100.

Book Chapter

Zhang, S., Douglas, J., Wang, S., & Culpepper, S. (2019). Reduced Reparameterized Unified Model Applied to Learning Spatial Reasoning Skills. *The Handbook of Diagnostic Classification Models*. (pp. 503-524). Springer, Cham.

Conference publication (peer review)

Xiao, H., Gao, J., Wang, Z., Wang, S., Su, L., & Liu, H. (2016). *A Truth Discovery Approach with Theoretical Guarantee. ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD): Research Track*

GRANTS

Grants Awarded

Principal Investigator The Item Bank Calibration and Replenishment for Computerized Adaptive Testing in Small Scale Assessments: Method, Theory, and Application. (2023-2026), ($300,000), National Science Foundation.

Co-Principal Investigator Intelligent, Adaptive Program with Just-in-time Feedback for Preservice Teachers (2023-2027), NSF.

Co-Principal Investigator Revision and Review Behavior in Large-Scale Computer-Based Assessments: An analysis of NAEP Mathematics Process data (2023-2024) ($35,000), AERA-NSF.

Co-Principal Investigator FY24 Anderson School District 5 (2023-2024) ($148,196).

Co-Principal Investigator Bayesian Inference for Attribute Hierarchy in Cognitive Diagnosis. (2021-2023),($270,441), National Science Foundation.

Co-Principal Investigator A Multi-phase development of the Electric Circuit Concepts Diagnostic tool: Phase I (2020-2023), ($299,951.), National Science Foundation. PI, Nathaniel Hunsu.

Co-Principal Investigator Momentary Assessment of Research Learning Environments (2019-2022), ($1420,571.), National Science Foundation.

Research Scientist. The Rational Numbers Playground: Applying and Refining a Model for Dynamic, Discussion-Based Professional Development for Fractions, Ratios, and Proportions (2022-2016), National Science Foundation.

Principal Investigator Cognitive Diagnosis Models for Learning (2019-2021,$70,000.), National Academy of Education (NAEd)/Spencer Postdoctoral Fellowship Program.

Principal Investigator Dynamic Diagnostic Classification Model based Adaptive Learning: Design and Application (2018-2019)($15,000), Junior Faculty Seed Grant in STEM, the University of Georgia.

Principal Investigator The Development of A Computerized Adaptive Test with Response Revision to Improve Classroom Instruction and Assessment (2018-2019)($5,000) , Early Career Faculty Grant, College of Education,The University of Georgia.

Principal Investigator The development of a cognitive diagnostic assessment to enhance the learning of 3-D spatial visualization skills (2016-2017)($10,000), The Owens Institute for Behavioral Research, The University of Georgia.

Statistical Consultant Diagnostic Inventories of Cognition in Education (2017-2021), ($1,400,000.), Institute of Educational Sciences, Cognition and Student Learning: Goal 5 Measurement. PI, Laine Bradshaw

HONORS AND AWARDS

Outstanding Reviewer for 2021, AERA	2021
Outstanding Reviewer for 2020, AERA	2020
Jason Millman Promising Measurement Scholar Award, NCME	2020
Early Career Researcher Award, IACAT	2019
Early Career Faculty Research Award, UGA	2018
Norton Prize for Outstanding Doctoral Thesis in Statistics, UIUC	2015
International Association for Computerized Adaptive Testing (IACAT) Young Researcher /Students Grants, Cambridge, England	2015
Pearson Travel Award for International Meeting of the Psychometric Society (IMPS) Beijing,China	2015
Graduate College Spring Conference Travel Award, UIUC	2013–2014
Mathematical First-class Scholarship for Undergraduates, Beijing Normal University, Beijing, China	2008–2011
National Scholarship Endeavors, Ministry of Education, China	2009–2010

PRESENTATIONS

Invited Conference and Workshop

Wang, S. (2023, June). A summer short course on Introduction to Educational Measurement, Psychometrics and Data Science. Department of Statistics, Bejing Normal Unviersity (Zhuhai).
Wang, S. (2019, June). Computerized Adaptive Testing with Response Revision: Challenges, Solutions and Applications. *Early Career Researcher Award invited speak at the 2019 International Association of Computerized Adaptive Testing*, Minneapolis, MN.

Wang, S. (2017, November). Using response time to assess learning progress: A hidden Markov Model for Response and Response Time, *Fifth Conference on the Statistical Methods in Psychometrics*, department of statistics, Columbia University, New York.

Wang, S. (2017, June). Model learning in Latent Class analysis: A higher-order hidden Markov model with covariates. *Statistical Colloquium*, department of statistics, Bejing Normal University, Beijing, China.

Wang, S. (2017, June). Track students' growth: Application of the higher order Markov model to spatial reasoning diagnostic tests with learning modules. *The Workshop on Deep Learning in Education*, department of educational technology, East Normal University, Shanghai, China.

Wang, S. (2016, September). Model Learning in Cognitive Diagnosis: A Case Study in Spatial Reasoning . *Fourth Conference on the Statistical Methods in Psychometrics*, New York, NY.

Wang, S. (2015, June). Sequential Design for Computerized Adaptive Testing Allowing for Response Revision. *Fifth International Workshop in Sequential Methodologies*, New York, NY.

Wang, S. (2014, December). Sequential Design for Computerized Adaptive Testing Allowing for Response Revision. *The International Computerized Adaptive Testing and Cognitive Diagnosis Workshop, JiangXi Normal University*, JiangXi, China.

Invited Research Talk

Wang, S. (July, 2023). Learning Attribute Hierarchy from Data within Cognitive Diagnosis Models. Department of Psychology, JiangXi Normal University.

Wang, S. (June, 2023). Bayesian Estimation of Attribute Hierarchy for Cognitive Diagnosis Models. Department of Statistics, Beijing Normal University (Zhuhai).

Wang, S. (2022, October). Bayesian Estimation of Attribute Hierarchy for Cognitive Diagnosis Models. Quantitative Psychology Brownbag, Department of Psychology, University of Illinois at Urbana-Champagin.

Wang, S. (2022, September). Bayesian Estimation of Attribute Hierachy for Cognitive Diagnosis Models. Research Colloquium, Department of Statistics, Northeast Normal University.

Wang, S. (2022, March). Adaptive Testing and Learning in Education: A Methodological Perspective. Research Colloquium, AI4STEM Center, University of Georgia.

Wang, S. (2019, September). Measuring Learning Outcome Using Responses and Response Times. *Educational and Psychological Measurement Colloquium Series*, Faculty of Education, The University of Hong Kong.

Wang, S. (2017, October). Model Learning in Latent Class Analysis: a higher-order hidden Markov model with covariates. *The Big Data Analytics Lab*, University of Georgia, GA.

Wang, S. (2017, March). Computerized Adaptive Testing with Response Revision. *Statistical Colloquium*, department of statistics, University of Georgia, GA.

Wang, S. (2016, January). Adaptive Testing and Cognitive Diagnosis with Application to Personalized Assessment. *University of Georgia*, Athens, GA.

Wang, S. (2016, January). Computerized Adaptive Testing that Allows for Response Revision. *University of California*, Los Angeles, CA.

Wang, S. (2015, March). Sequential Design for Computerized Adaptive Testing Allowing for Response Revision. *Department of Educational Measurement and Statistics , University of Iowa*, Iowa City, IA.

Wang, S. (2014, September). Developing Cutting-Edge Technologies for Chinese Language Proficiency Test (HSK). *Confucius Institute Day and Open House, School of Education, University of Illinois*, Urbana-Champaign, IL.

Wang, S. (2013, February). A Modified Maximum Likelihood Procedure for CAT Consisting of Both Dichotomous and Polytomous Items. *Department of Psychology, University of Illinois*, Urbana-Champaign, IL.

Conference Presentation

Xiao, H and **Wang, S.** Resolving Conflicts in Crowds: An Earnings Forecasts Application. Paper presented at INFORMS Annual Meeting 2022, INFORMS Workshop on Data Mining and Decision Analytics.

Hunsu,N., Yao, K., Weshah, A., Olaogun, O., & **Wang, S.** Work in Progress: The Electric Circuit Concepts Diagnostic (ECCD). *Paper presented at the ASEE 2022 Annual Conference, Minneapolis, Minnesota, USA.*

Zhang, S, Li, A & **Wang, S.** (2022, April) Exploration of Latent Structure in Test Review and Revision Log Data. *Paper presented at the 2022 Joint Statistical Meetings, Washington DC, USA.*

Li, A, Zhang, S & **Wang, S.** (2022, April) Exploring Item-Level Revision Behaviors by Revision Log Clustering. *Paper presented at the 2022 Annual Meeting of the National Council on Measurement in Education,San Diego , USA.*

Wang, S. (2021, June) A Latent Variable Model to Measure Fluency using response times and response accuracy. EcoSta 2021, virtual conference, HKUST, HongKong, china.

Wang, S. (2021, July). Using Response Times and Response Accuracy to Rethink "Mastery" in Cognitive Diagnosis Models. IMPS 2021, Virtual Conference.

Chen, Y. and **Wang, S.** (2021, June). Automated Attribute Hierarchy Detection with Application to Adaptive Learning. NCME 2021, Virtual Conference.

Wheeler, J., **Wang, S.** and Cohen, A.(2021, June) A comparison of latent semantic analysis and latent Dirichlet Allocation. NCME 2021, virtual conference.

Wang, S. (2020, April 17 - 21) Using Exploratory and Confirmatory Approaches to Explore Students' Learning From a Multidimensional Diagnostic Assessment With Learning Tools to Improve 3-D Mental Rotation Skills [Invited Poster Session]. AERA Annual Meeting San Francisco, CA http://tinyurl.com/trgmzdh (Conference Canceled)

Wang, S. and Chen, Yinghan (2019, June). Automated Attribute Hierarchy Detection within Cognitive Diagnosis Modelling framework *Paper presented at the 2019 International Association of Computerized Adaptive Testing*, Minneapolis, MN.

Wang, S. and Zhang, S. (2019, April). Measuring Learning Outcome using Responses and Response times: Mastery and Fluency. *Paper presented at the 2019 Annual Meeting of the National Council on Measurement in Education*, Toronto, Ontario, Canada.

Wang, S., Zhang, S., Douglas, J. and Culpepper, S. (2018, July). A joint Modeling Framework using responses and response times to track skill acquisition. *Paper presented at the 2018 Joint Statistical Meeting*, Vancouver,Canada.

Zhang, S.& **Wang, S.** (2018, July). Modelling Heterogeneity in Online Learners: A Mixture Learning Model with Responses and Response Times. *Paper presented at the 2018 International Meeting of Psychometric Society*, New York, NY.

Wang, S. (2018, June). A joint Modeling Framework using responses and response times to track skill acquisition: Model Estimation and Application. *Paper presented at the 2018 ICSA Applied Statistics Symposium*, New Brunswick, NJ.

Wang, S. (2018, April). Diagnostic Assessment with Learning Tools to improve 3D Spatial Rotation Skills. *Paper presented at the Annual Meeting of the National Council on Measurement in Education*, New York, NY.

Wang, S. (2017, August). Computerized Adaptive Testing with Response Revision: Statistical Foundations, New Challenges and Possible Solutions. *Paper presented at the International Association for Computerized Adaptive Testing Conference*, Niigata, Japan.

Chen,Y, Culpepper,S., **Wang, S.** and Douglas, J.(2017, July). Bayesian Modeling for Learning Trajectories in Cognitive Diagnosis Models. *Paper presented at the 2017 International Meeting for Psychometric Society*, Zurich, Switzerland.

Wang, S. (2017, April). Computerized Adaptive Testing with Response Revision. *Paper presented at the Annual Meeting of the American Educational Research Association*, San Antonio, Texas.

Wang, S. (2017, April). Tracking change with predictors: A model for learning in cognitive diagnosis. *Paper presented at the Annual Meeting of the National Council on Measurement in*

Education, San Antonio, Texas.

Wang, S. (2017, March). Tracking Skill Acquisition: A family of Higher-Order Hidden Markov Leaning Models *Poster at COE Research Conference*, Athens, GA.

Wang, S. (2015, September). A Partial Likelihood method for Computerized Adaptive Testing to Allow for Response Revision. *Paper presented at the 2015 International Association of Computerized Adaptive Testing*, Cambridge, England.

Wang, S., Fellouris, G. & Chang, H. (2015, August). Sequential Design for Computerized Adaptive Testing Allowing for Response Revision. *Paper presented at the 2015 Joint Statistical Meetings*, Seattle, WA.

Wang, S., Fellouris, G. & Chang, H. (2015, July). Sequential Design for Computerized Adaptive Testing Allowing for Response Revision. *Paper presented at the 80th International Meeting of Psychometric Society*, Beijing, China.

Wang, S., Fellouris, G. & Chang, H. (2014, November). Sequential Design for Computerized Adaptive Testing Allowing for Response Revision. *Paper presented at the Rober Bohrer Student Workshop in Statistics, Department of Statistics, University of Illinois*, Urbana-Champaign, IL.

Wang, S. & Douglas, J.A. (2014, July). Model Misspecification in Cognitive Diagnosis: Asymptotic Behavior of Maximum Likelihood Classification and A Robust Alternative. *Paper presented at the 79th Annual Meeting of the Psychometric Society*, Madison, MA.

Wang, S., Lin, H., Chang, H. & Douglas, J.A. (2014, April). Hybrid Computerized Adaptive Testing: From Group Sequential Design to Fully Sequential Design. *Paper presented at the Annual Meeting of the National Council on Measurement in Education*, Philadephia, PA.

Wang, S., Chang, H. & Douglas, J.A. (2013, April). A Modified Maximum Likelihood Procedure for CAT Consisting of Both Dichotomous and Polytomous Items. *Paper presented at the Annual Meeting of the American Educational Research Association*, San Francisco, CA.

Wang, S. & Douglas, J.A. (2012, November). Consistency of Nonparametric Classification in Cognitive Diagnosis. *Paper presented at the Rober Bohrer Student Workshop in Statistics, Department of Statistics, University of Illinois*, Urbana-Champaign, IL.

Wang, S. & Douglas, J.A. (2012, July). Consistency of Nonparametric Classification in Cognitive Diagnosis. *Paper presented at the 77th Annual Meeting of the Psychometric Society*, Lincon, NE.

Mentored Student Presentations/Posters

Shen,Y.*, **Wang, S.** and Xiao, H. (2023, April) New 1-bit Matrix Completion-Based Methods for CAT Item Bank Calibration. *Paper presented at the 2023 Annual Meeting of the National Council on Measurement in Education, Chicago, IL, USA.*

Wheeler, J.*, **Wang, S.**, Tan, Y.* & Cohen, A. (2022, April) Textual Data as Process Data: A New Scoring Procedure for Mixed-Format Assessments. *Paper presented at the 2022 Annual Meeting of the National Council on Measurement in Education,San Diego , USA.*

Tan, Y.* & **Wang, S**. (2022, April.) Dynamic Learning Models Within a Cognitive Diagnosis Framework to Quantify Heterogeneous Learning Effectiveness of Learning Materials. *Paper presented at the 2022 Annual Meeting of the National Council on Measurement in Education,San Diego , USA.*

Shen, Y.*, & **Wang, S.** (2021, June) Application of Matrix Completion Methods to Item Calibration in Targeted Testing Design. Virtually presented at the the Annual Meeting of National Concil on Measurement in Education.

Shen, Y.*, & **Wang, S.** (2020, July). Using matrix completion algorithm to calibrate items with missing responses. Virtually presented at the International Meeting of Psychometric Society.

Shen, Y*.& **Wang, S.** (2019, July). Investigating Students' Testing Behaviors Using Mixted Types of Process Data. *Paper presented at the International Meeting of Psychometric Society*, Santiago, Chile.

Shen, Y*.& **Wang, S.** (2019, April). Exploratory Analysis of Process Data to Investigate Students Learning Behaviors. *Paper presented at the Annual Meeting of the National Council on Measurement in Education*, Toronto, Ontario, Canada.

Yan, Y*.& **Wang, S.** (2019, April). An Item-level Dynamic Learning Model. *Paper presented at the Annual Meeting of the National Council on Measurement in Education*, Toronto, Ontario, Canada

Shen, Y*.& **Wang, S.** (2019, January). Investigating Students Learning and Testing Behaviors Using Multivariate Data Analysis. COE research conference, Athens, GA.

Yan, T*.& **Wang, S.** (2019, January). Measuring Learning Effectiveness: An Item-level Dynamic Learning Model. COE research conference, Athens, GA

Shen, Y*., Bao, Y*.,**Wang, S.** & Bradshaw, L. (2018, April). Detecting Misconceptions and Estimating Ability Simultaneously: A Hybrid Computerized Adaptive Testing Framework. *Paper presented at the Annual Meeting of the National Council on Measurement in Education*, New York, NY.

Shen, Y*., Bao, Y*.,**Wang, S.** & Bradshaw, L. (2018, March). Detecting Misconceptions and Estimating Ability Simultaneously: A Hybrid Computerized Adaptive Testing Framework. *Poster Presented at the College of Education Research Conference*, Athens, GA.

Shen, Y*., Bao, Y*., **Wang, S.** & Bradshaw, L. (2017, August). Using Computerized Adaptive Testing to Detect Students' Misconceptions: Exploration of Item Selection. *Paper presented at the International Association for Computerized Adaptive Testing Conference*, Niigata, Japan.

Organized Conference Session

Coordinated Session: Data-Drive Analysis of Latent Structures for Cognitive Diagnosis Models in Educational Assessments. 2023 NCME at Chicago, IL

Conference Discussant

Session Discussant for Development and Methodologies for Operational CAT Programs with Advanced Requirements. 2023 NCME, Chicago, IL.

Session Discussant for Advancing Diagnostic Psychometric Models to Enhance Student Learning: Statistical Theory, Methods, and Applications. 2023 AERA, Chicago, IL.

Conference Training Workshop

2018 NCME Training Workshop Techniques and Software for Q-Matrix Estimation and Modeling Learning in Cognitive Diagnosis

COMPUTER SOFTWARE

Zhang,S., **Wang, S.**,& Chen, Y.(2018) R package"hmcdm" to fit hidden Markov model for learning within the Cognitive Diagnosis Model framework, version 1.0.0.

Wang, S., Hu, Y., Wu, B. (2017) A Computer-Based 3D Spatial Rotation Learning Program II.

Yang, Y. & **Wang**,S. (2016) A Computer-Based 3D Spatial Rotation Learning Program I.

Wang, S. Wang, S., Yang, Y. & Hu, Y. A Web-based Computerized Adaptive Testing (Prototype) for Chinese Proficiency Tests Hanyu Shuiping Kaoshi (HSK) Level 4.

Wang, S.(2016) Automatic Test Assembly Program for Chinese Proficiency Tests Hanyu Shuiping Kaoshi (HSK) Level 1 to 6.

TEACHING EXPERIENCE

Course Instructor

Department of Educational Psychology, UGA

ERSH8310: Applied Analysis of Variance in Education	FALL AND SPRING, *2016-2022*
ERSH8640: Computerized Adaptive Testing	SPRING *2017,Fall 2020.*
ERSH9800: Statistical Tools for Quantitative Methodology Research	FALL *2017.*
ERSH8350: Multivariate Methods in Education	SPRING *2018-2022*

Department of Statistics, UIUC

STAT200: Statistical Analysis,	FALL 2014

Discussion Instructor
Department of Statistics, UIUC

STAT400, Statistics and Probability I,	FALL 2012, FALL 2013

Teaching Assistant
Department of Statistics, UIUC

STAT426: Sampling and Categorical Data	SPRING *2015*
STAT511: Mathematical Statistics II	SPRING *2014*
STAT425: Applied Regression and Design	SPRING *2013*
STAT410: Statistics and Probability II	SPRING *2012*
STAT420: Methods of Applied Statistics	FALL *2011*

SUPERVISION OF STUDENT RESEARCH

Primary Graduate Mentor
Tamlyn Lahoud, Quantitative Methodology Program, In progress (PhD),
Yanyan Tan, Quantitative Methodology Program, Educational Psychology, In progress (PhD).
Yawei Shen, Quantitative Methodology Program, Educational Psychology (PhD., 2022, Pearson Assessments).
Ziwei Zhang, Quantitative Methodology Program, Educational Psychology (Master 2020, PhD student in University of Minnesota).

Doctoral Committee Member
Yu Bao, Quantitative Methodology Program, Educational Psychology. (PhD, 2018, Assitant Professor at James Madison University)
Seohyun Kim, Quantitative Methodology Program, Educational Psychology (PhD, 2018)
Kang Xue,Quantitative Methodology Program, Educational Psychology (PhD, 2019).
Minho Kwak,Quantitative Methodology Program, Educational Psychology (PhD, 2019).
Jiajun Xu,Quantitative Methodology Program, Educational Psychology (PhD, 2020).
Guoguo Zheng, Quantitative Methodology Program, Educational Psychology (PhD, 2021).
Jiawei Xiong, Quantitative Methodology Program, Educational Psychology (PhD, 2022).
Jordan Wheeler, Quantitative Methodology Program, Educational Psychology (PhD, 2023, Assitant Professor at University of Nebraska Lincoln)
Selay Zor, Quantitative Methodology Program, Educational Psychology. (PhD, 2023)
Moulare Kesse, Department of Career and Information Studies (PhD, 2023)

Constanza Mardones-Segovia, Quantitative Methodology Program, Educational Psychology (In progress)
Madeline Alyce Schellman,Quantitative Methodology Program, Educational Psychology (In progress)

Master Committee Member

Selay Zor, Quantitative Methodology Program, Educational Psychology (MA, 2021).
Constanza Mardones-Segovia, Quantitative Methodology Program, Educational Psychology (MA, 2022)
Allan Moore, Quantitative Methodology Program, Educational Psychology.

SERVICE TO INSTITUTION

University of Georgia, College of Education

COE Research Conference Committee, 2017

Faculty Senate (2021-2023)

The Faculty Search Committee Member, Science Education Program, 2023

University of Georgia, Department of Educational Psychology

The Owen Scott Research Competition Award Committee, 2017, 2018

The Search Committee for Lecturer, Educational Psychology, 2018

The Faculty Search Committee Chair, Quantitative Methodology, 2022 & 2023

The post-tenure review committee member, 2022

Faculty annual review committee member, 2022

Quantitative Methodology Program Coordinator, 2022-Present

PROFESSIONAL SERVICE & AFFILIATIONS

Manuscript Reviewer

Applied Psychological Measurement, British Journal of Mathematical and Statistical Psychology, Journal of Educational Behavioral and Statistics, Journal of Educational Measurement, The American Statistician, Frontiers in Psychology, Psychometrika, Journal of Classification, Structure Equation Modelling, Educational and Psychological Measurement, Journal of Experimental Education, AERA-Open, Multivariate Behavioral Research, Educational Measurement: Issues and Practice.

Editorial Work

Associate Editor, Journal of Educational Behavioral and Statistics.   2023 – PRESENT

Editorial Board

Journal of Educational Behavioral and Statistics.   2021 – 2022

Journal of Educational Measurement.   2022 – PRESENT

Referee for grant proposals

Panel Reviewer for S-STEM Track 3, National Science Foundation

External proposal reviewer for MMS, National Science Foundation.

Panel Reviewer for Institute of Education Science

Conference Committee

Co-Chair, Diagnostic Measurment SIGMIE in NCME   APRIL 2023– APRIL 2026

Member, NCME Bradley Hanson Award Committee	APRIL 2023– present
Member, 2023 IMPS Program Committee.	2023
Member, NCME Dissertation Award Committee	APRIL 2017– APRIL 2019
Chair, NCME Dissertation Award Committee	APRIL 2019– APRIL 2020
Chair, AERA SIG Cognition and Assessment Conference Program	APRIL 2019– APRIL 2020

Member of Professional Associations

American Educational Research Association, Division D (Measurement & Research Methodology) JANUARY 2012– PRESENT	
National Council on Measurement in Education	JANUARY 2014– PRESENT
Psychometric Society	AUGUST 2013– PRESENT
American Statistical Association	JANUARY 2014– PRESENT
International Association for Computerized Adaptive Testing	JANUARY 2015– PRESENT

Mentoring Experience

Faculty mentor in the 2022 NCME Mentoring program

Invited Panellist: NCME Webinar: Navigating the Work Waves as an Early Career Measurement Scholar (2023/08/22)

SKILLS

Highly proficient programming skills: R, Matlab

Experience with statistical and specialized software: SAS, SPSS, WINSTEP, flexMIRT

Word Process: Latex