

HONG JIAO

CURRICULUM VITAE

Notarization. I have read the following and certify that this curriculum vitae is a current and accurate statement of my professional record.

Signature 

Date: February 7, 2020

1. PERSONAL INFORMATION

A. CONTACT INFORMATION

Measurement, Statistics, and Evaluation (EDMS)
Department of Human Development and Quantitative Methodology
1230C Benjamin Building
3942 Campus Drive
University of Maryland
College Park, MD 20742-1115
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B. CURRENT POSITION

Academic Appointments

- 8/2013 – **Associate Professor**
Measurement, Statistics, and Evaluation (EDMS), Department of Human Development and Quantitative Methodology, University of Maryland, College Park, MD.
- 8/2015 – **Director & Principle Investigator**
Maryland Assessment Research Center (MARC, previously MARCES), University of Maryland, College Park, MD.
- 7/2011 – **Honorary Guest Professor**
Beijing Normal University, Beijing, China
- 9/2018 – **Honorary Guest Professor**
East China Normal University, Shanghai, China

Other Appointments

- 2015 – present **Chair**
The Technical Advisory Committee for the Maryland State Assessment Programs, Maryland State Department of Education.
- 2019 – 2021 **Chair**
The Organizing Committee for the 2020 International Meeting of Psychometric Society.
- 2018 – 2020 **Chair Elected**
American Educational Research Association, Rasch Measurement Special Interest Group.

C. PREVIOUS PROFESSIONAL EMPLOYMENT

Co-Director

Maryland Assessment Research Center (MARC, previously MARCES), University of Maryland, College Park, MD.

Assistant Professor

Measurement, Statistics, and Evaluation (EDMS), Department of Human Development and Quantitative Methodology, University of Maryland, College Park, MD.

Psychometrician II and I

Psychometric and Research Service, Harcourt Assessment, Inc. San Antonio, TX.

Lenke Psychometric Fellow

Psychometric and Research Service, Harcourt Educational Measurement, Inc. San Antonio, TX.

Measurement and Statistics Intern

Student Assessment, Leon County Schools, Tallahassee, FL.

Teaching Assistant

College Mathematics in Department of Mathematics, Florida State University, Tallahassee, FL.

Lecturer of English

Department of Foreign Languages, Shanghai Jiao Tong University, Shanghai, China.

D. EDUCATION

Ph.D. in Measurement, Statistics, and Evaluation

Florida State University, Tallahassee, FL

M.A. in Linguistics and Applied Linguistics

Shanghai Jiao Tong University, Shanghai, China (Graduated with honor)

B.S. in English for Science and Technology

Shanghai Jiao Tong University, Shanghai, China

2. RESEARCH, SCHOLARLY, AND CREATIVE ACTIVITIES

Note: * indicates student coauthors.

A. BOOKS

Books Edited (Published)

1. **Jiao, H.**, & Lissitz, R. W. (2020). *Applications of artificial intelligence to assessment*. Charlotte, NC: Information Age Publisher.
2. **Jiao, H.**, Lissitz, R. W., & Van Wie*, A. (2018, Eds.). *Data analytics and psychometrics: Informing assessment practices*. Charlotte, NC: Information Age Publisher.
3. **Jiao, H.**, & Lissitz, R. W. (2017, Eds.). *Technology enhanced innovative assessment: Development, modeling, and scoring from an interdisciplinary perspective*. Charlotte, NC: Information Age Publisher.
4. **Jiao, H.**, & Lissitz, R. W. (2017, Eds.). *Test fairness in the new generation of large-scale assessment*. Charlotte, NC: Information Age Publisher.
5. **Jiao, H.**, & Lissitz, R. W. (2015, Eds.). *The next generation of testing: Common core standards, Smarter-Balanced, PARCC, and the nationwide testing movement*. Charlotte, NC: Information Age Publisher.
6. Lissitz, R. W., & **Jiao, H.** (2014, Eds.). *Value added modeling and growth modeling with particular application to teacher and school effectiveness*. Charlotte, NC: Information Age Publisher.
7. Lissitz, R. W., & **Jiao, H.** (2012, Eds.). *Computers and their impact on state assessment: Recent history and predictions for the future*. Charlotte, NC: Information Age Publisher.

Chapters in Books (Published)

1. **Jiao, H.**, Liao*, D., & Zhan*, P. (2019). Utilizing process data for cognitive diagnosis. In M. von Davier & Y. Lee (Eds.), *Handbook of Diagnostic Classification Models*.
2. He, Q., Liao*, D., & **Jiao, H.** (2019). Clustering behavioral patterns using process data in PIAAC problem-solving items. In B. P. Veldkamp & C. Sluijter (Eds.), *Theoretical and Practical Advances in Computer-Based Educational Measurement*. Springer. Methodology of Educational Measurement and Assessment (book series), Springer. https://doi.org/10.1007/978-3-030-18480-3_10.
3. **Jiao, H.**, & Li*, C. (2018). Progress in International Reading Literacy Study (PIRLS) data. In *The SAGE Encyclopedia of Educational Research, Measurement, and Evaluation*. Thousand Oaks, CA: Sage.
4. **Jiao, H.**, & Liao*, D. (2018). Testlet response theory. In *The SAGE Encyclopedia of Educational Research, Measurement, and Evaluation*. Thousand Oaks, CA: Sage.

5. **Jiao, H.**, Lissitz, R. W., & Zhan*, P. (2017). Calibrating innovative items embedded in multiple contexts. In H. Jiao & R.W. Lissitz (Eds.), *Technology-enhanced innovative assessment: Development, modeling, scoring from an interdisciplinary perspective*. Charlotte, NC: Information Age Publishing.
6. **Jiao, H.**, Kamata, A., & Xie, C. (2015). A multilevel cross-classified testlet model for complex item and person clustering in item response modeling. In J. Harring, L. Stapleton, & S. Beretvas (Eds.), *Advances in multilevel modeling for educational research: Addressing practical issues found in real-world applications* (pp.139-161). Charlotte, NC: Information Age Publishing.
7. Luo, Y., **Jiao, H.**, & Lissitz, R. W. (2015). An empirical study of the impact of the choice of persistence model in value-added modeling upon teacher effect estimates. In L. A. van der Ark, D. Bolt, W.-C. Wang, J. A. Douglas & S.-M. Chow (Eds.), *Quantitative psychology research* (pp.133-143). Springer, Switzerland.
8. **Jiao, H.**, & Lissitz, R. W. (2014). Direct modeling of student growth with multilevel and mixture extensions. In R. W. Lissitz & H. Jiao (Eds.), *Value added modeling and growth modeling with particular application to teacher and school effectiveness* (pp.293-306). Charlotte, NC: Information Age Publisher.
9. **Jiao, H.**, & Chen*, Y.-F. (2014). Differential item and testlet functioning. In A. Kunnan (Ed.), *The Companion to Language Assessments* (pp.1282-1300). John Wiley & Sons, Inc.
10. Chen*, Y.-F., & **Jiao, H.** (2014). Does model misspecification lead to spurious latent classes? An evaluation of model comparison indices. In R. E. Millsap et al. (Eds.), *New development in quantitative psychology, Springer Proceedings in Mathematics & Statistics*, 66, DOI 10.1007/978-1-4614-9348-8_22, Springer Science +Business Media, New York.
11. **Jiao, H.**, & Lissitz, R. W. (2012). Computer-based testing in K-12 state assessments: An Introduction. In R. W. Lissitz & H. Jiao (Ed.), *Computers and their impact on state assessment: Recent history and predictions for the future* (pp. 1-21). Charlotte, NC: Information Age Publisher.
12. Templin, J. & **Jiao, H.** (2011). Applying model-based approaches to identify performance categories. In G. Cizek (Ed.), *Setting performance standards: foundations, methods, and innovations* (pp. 379-397). New York, NY: Routledge.
13. **Jiao, H.**, Wang, S., Kamata, A. (2007). Modeling local item dependence with the hierarchical generalized linear model. In E. V. Smith & R. M. Smith (Eds.), *Rasch Measurement: Advanced and Specialized Applications*. JAM press.
14. **Jiao, H.** (2004). Evaluating the Dimensionality of the Michigan English Language Assessment Battery. *Spaan Fellow Working Papers in Second or Foreign Language Assessment: Volume 2* (pp. 27-52). University of Michigan, Ann Arbor, MI.

B. ARTICLES IN REFEREED JOURNALS

Articles in Refereed Journals (Published)

1. Liao*, D., He, Q., & **Jiao, H.** (2019). Mapping background variables with sequential patterns in problem solving environments: An investigation on US adults' employment status in PIAAC. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2019.00646>.
2. Man*, K., Haring, J., **Jiao, H.**, & Zhan*, P. (2019). Conditional joint modeling of compensatory multidimensional item responses and response times. *Applied Psychological Measurement*. Advanced Online Publication. URL <https://doi.org/10.1177/0146621618824853>.
3. Zhan*, P., **Jiao, H.**, Liao*, D. & Li, F (2019). A longitudinal higher-order diagnostic classification model. *Journal of Educational and Behavioral Statistics*. Advanced Online Publication. URL <https://doi.org/10.3102/1076998619827593>.
4. Zhan*, P., Ma, W., **Jiao, H.**, & Ding, S. (2019). A sequential higher-order latent structural model for hierarchical attributes in cognitive diagnostic assessments. *Applied Psychological Measurement*. Advanced Online Publication. URL <https://doi.org/10.1177/0146621619832935>.
5. Zhan*, P., **Jiao, H.**, Man, K., & Wang, L. (2019). Using JAGS for Bayesian cognitive diagnosis modeling: A tutorial. *Journal of Educational and Behavioral Statistics*. Advanced Online Publication. URL <https://doi.org/10.3102/1076998619826040>
6. Zhan*, P., Wang, W.-C., **Jiao, H.**, & Bian, Y. (2018). The probabilistic-inputs, noisy conjunctive models for cognitive diagnosis. *Frontiers in Psychology*. URL <https://doi.org/10.3389/fpsyg.2018.00997>.
7. Zhan*, P., **Jiao, H.**, Liao*, M., & Bian, Y. (2018). Bayesian DINA modeling incorporating within-item characteristics dependency. *Applied Psychological Measurement*. 43, 143–158. <https://doi.org/10.1177/0146621618781594>
8. Qiao*, X., & **Jiao, H.** (2018). Comparing data mining techniques in analyzing process data: A case study on PISA 2012 problem-solving items. *Frontiers in Psychology*.
9. Zhan*, P. **Jiao, H.**, & Liao*, D. (2017). Cognitive diagnosis modeling incorporating item response times. *British Journal of Mathematical and Statistical Psychology*. doi: 10.1111/bmsp.12114
10. Luo, Y., & **Jiao, H.** (2017). Using the Stan program for Bayesian item response theory. *Educational and Psychological Measurement*. DOI: 10.1177/0013164417693666
11. Li*, T., Xie*, C., & **Jiao, H.** (2016). Assessing fit of alternative unidimensional polytomous item response models using posterior predictive model checking. *Psychological Methods*.
12. Li*, T., **Jiao, H.**, & Macready, G. (2015). Different approaches to covariate inclusion in the mixture Rasch model. *Educational and Psychological Measurement*. DOI: 10.1177/0013164415610380
13. **Jiao, H.**, & Zhang*, Y. (2015). Polytomous multilevel testlet models for testlet-based assessments with complex sampling designs. *British Journal of Mathematical and*

Statistical Psychology, 1, 65-83. Online first, DOI:10.1111/bmsp.12035.

14. Wolfe, E., Song, T. W., & **Jiao, H.** (2015). Features of difficult-to-score essays. *Assessing Writing*, 27, 1-10.
15. Wolfe, E. W., **Jiao, H.**, & Song, T. (2015). A family of rater accuracy models. *Journal of Applied Measurement*, 16
16. Chen*, Y.-F. & **Jiao, H.** (2014). Exploring the utility of background and cognitive variables in explaining latent differential item functioning: An example of the PISA 2009 reading assessment. *Educational Assessment*, 19, 77-96.
17. **Jiao, H.**, Wang, S., & He, W. (2013). Estimation methods for one-parameter testlet models. *Journal of Educational Measurement*, 50, 186-203.
18. Wang, S., **Jiao, H.**, & Zhang, L. (2013). Validation of longitudinal achievement constructs of vertically scaled computerized adaptive tests: A multiple-indicator, latent-growth modeling approach. *International Journal of Quantitative Research in Education*, 1, 383-407.
19. Tao, J., Xu, B., Shi, N., & **Jiao, H.** (2013). Refining the two-parameter testlet response model by introducing testlet discrimination parameters. *Japanese Psychological Research*, 55, 284-291.
20. Wang, S., McCall, M., **Jiao, H.**, & Harris, G. (2013). Construct validity and measurement invariance of computerized adaptive testing: application to Measures of Academic Progress (MAP) using confirmatory factor analysis. *Journal of Educational and Developmental Psychology*, 3, 88-100.
21. Li*, Y., **Jiao, H.**, & Lissitz, R.W. (2012). Applying multidimensional IRT models in validating test dimensionality: An example of K-12 large-scale science assessment. *Journal of Applied Testing Technology*, vol. 13, n2.
22. **Jiao, H.**, Macready, G., Liu*, J., & Cho*, Y. (2012). A mixture Rasch model based computerized adaptive test for latent class identification. *Applied Psychological Measurement*, 36, 469-493.
23. **Jiao, H.**, Kamata, A., Wang, S., & Jin, Y. (2012). A multilevel testlet model for dual local dependence. *Journal of Educational Measurement*, 49, 82-100.
24. **Jiao, H.**, Liu*, J., Haynie, K., Woo, A., & Gorham, J. (2012). Comparison between dichotomous and polytomous scoring of innovative items in a large-scale computerized adaptive test. *Educational and Psychological Measurement*, 72, 493 - 509.
25. **Jiao, H.**, Lissitz, B., Macready, G., Wang, S., & Liang*, S. (2011). Exploring levels of performance using the Mixture Rasch Model for standard setting. *Psychological Testing and Assessment Modeling*, 53, 499-522.

26. **Jiao, H.,** & Wang, S. (2010). A multifaceted approach to investigating the equivalence between computer-based and paper-and-pencil assessments: An example of Reading Diagnostics. *International Journal of Learning Technology*, 5, 264-288.
27. Wang, S., & **Jiao, H.** (2009). Construct equivalence across grades in a vertical scale for a K-12 large-scale reading assessment. *Educational and Psychological Measurement*, 69, 760-777.
28. Wang, S., **Jiao, H.,** Young, M. J., Brooks, T., & Olson, J. (2008). Comparability of computer-based and paper-and-pencil testing in K-12 reading assessments: A meta-analysis of testing mode effects. *Educational and Psychological Measurement*, 68(1), 5-24.
29. Wang, S., **Jiao, H.,** Young, M. J., Brooks, T., & Olson, J. (2007). A meta-analysis of testing mode effects in Grade K-12 Mathematics Tests. *Educational and Psychological Measurement*, 67(2), 219-238.
30. **Jiao, H.,** Wang, S., & Kamata, A. (2005). Modeling local item dependence with the hierarchical generalized linear model. *Journal of Applied Measurement*, 6(3), 311-321.
31. Wang, S., & **Jiao, H.** (2005). Development and application of the Stanford achievement test, diagnostic test, and English proficiency test. *Examinations Research*, 1(1), 118-128. (in Chinese with English abstract).

C. MONOGRAPHS, REPORTS, AND EXTENSION PUBLICATIONS

1. Liao*, M., Qiao*, X., **Jiao, H.,** & Lissitz, R. W. (2019). Investigating the relationship between SAT scores and post-secondary outcomes (MARC Research Report). College Park, MD: University of Maryland.
2. Qiao*, X., **Jiao, H.,** & Lissitz, R.W. (2019). Investigating the Concordance Relationship Between the HSA Cut Scores and the PARCC Cut Scores Using the 2018 PARCC Test Data. (MARC research Report). College Park, MD: University of Maryland.
3. Liao*, M., Qiao*, X., **Jiao, H.,** & Lissitz, R. W. (2019). *Investigating the relationship between the PARCC test scores and post-secondary outcomes* (MARC Research Report). College Park, MD: University of Maryland.
4. Liao*, M., Lee*, J., **Jiao, H.,** & Lissitz, R. W. (2019). *Maryland state student growth percentile on Multi-State Alternate Assessment* (MARC Research Report). College Park, MD: University of Maryland.
5. Qiao*, X., **Jiao, H.,** & Lissitz, R.W. (2017). *Combined Score Options for High School Graduation Assessment*. (MARC research Report). College Park, MD: University of Maryland.
6. Liao*, D., Liao*, M., Qiao*, X., **Jiao, H.,** & Lissitz, R.W. (2017). *Investigating the Concordance Relationship Between the HSA Cut Scores and the PARCC Cut Scores Using the 2017 PARCC Test Data*. (MARC research Report). College Park, MD: University of Maryland.

7. Liao*, M., Liao*, D., **Jiao, H.**, & Lissitz, R. W. (2017). *The relationship between the PARCC test scores and the college admission tests: SAT/ACT/PSAT* (MARC Research Report). College Park, MD: University of Maryland.
8. Zou*, J., Liao*, D., Liao*, M., **Jiao, H.**, & Lissitz, R. W. (2017). *Investigating invariance of the concordance relationship between the HSA cut scores and PARCC cut scores using the 2017 test data* (MARC Research Report). College Park, MD: University of Maryland.
9. Liao*, M., Liao*, D., **Jiao, H.**, & Lissitz, R. W. (2017). *Investigating invariance of the relationship between the PARCC test scores and the college admission tests: SAT/ACT/PSAT across years* (MARC Research Report). College Park, MD: University of Maryland.
10. Chen*, L., **Jiao, H.**, & Lissitz, R. W. (2017). *Investigating invariance of the concordance relationship between the MSA cut scores and PARCC cut scores across years* (MARC Research Report). College Park, MD: University of Maryland.
11. Chen*, L., Liao*, M., Liao*, D., Zou*, J., **Jiao, H.**, & Lissitz, R. W. (2016). *Maryland State student subgroup performance on 2016 PARCC tests* (MARC Research Report). College Park, MD: University of Maryland.
12. Zou*, J., Liao*, M., **Jiao, H.**, & Lissitz, R. W. (2016). *Maryland State student performance on 2016 PARCC tests* (MARC Research Report). College Park, MD: University of Maryland.
13. Chen*, L., Zou*, J., **Jiao, H.**, & Lissitz, R. W. (2016). *Investigating the concordance relationship between the MSA cut scores and PARCC cut scores* (MARC Research Report). College Park, MD: University of Maryland.
14. **Jiao, H.**, Zou*, J., Liao*, D., Li*, C., & Lissitz, R. W. (2016). *Investigating the concordance relationship between the HSA cut scores and PARCC cut scores* (MARC Research Report). College Park, MD: University of Maryland.
15. Bryant*, R., **Jiao, H.**, & Lissitz, R. W. (2016). *An investigation of NYC students' performance and experience with the 2015 PARCC pilot tests* (Research report submitted to PARCC Inc.). College Park, MD: University of Maryland.
16. Liao*, D., Li*, C., **Jiao, H.**, & Lissitz, R. W. (2015). *Investigating the relationship between the PARCC test scores and the college admission tests: SAT/ACT/PSAT* (MARC Research Report). College Park, MD: University of Maryland.
17. Liao*, D., **Jiao, H.**, & Lissitz, R. W. (2015). *Comparison of different approaches to dealing with directional local item dependence in multipart items* (MARC Research Report). College Park, MD: University of Maryland.
18. Li*, M., **Jiao, H.**, & Lissitz, R. W. (2015). *The impact of ignoring multiple-group structure in testlet-based tests on ability estimation* (MARC Research Report). College Park, MD: University of Maryland.

19. Kang*, Y., **Jiao, H.**, & Lissitz, R. W. (2015). *The impact of ignoring the multiple-group structure of item response data* (MARC Research Report). College Park, MD: University of Maryland.
20. Lee*, D., **Jiao, H.**, & Lissitz, R. W. (2015). *Comparison of latent trait and latent class-based models for cognitive diagnosis* (MARC Research Report). College Park, MD: University of Maryland.
21. **Jiao, H.** (2014). *Differential item functioning analysis for testlet-based assessments*. (Research Report submitted to the Governing Board for the AERA Grants Program). College Park, MD: University of Maryland.
22. **Jiao, H.**, Haynie, K., & Liu*, J. (2011). *A partial credit modeling study of the NCLEX innovative items*. (Research Report submitted to the Joint Research Committee, NCSBN). College Park, MD: University of Maryland.
23. **Jiao, H.**, Lissitz, R., & Hou*, X. (2010). *Computer-based testing in the K-12 state assessments*. (MARCES Technical Report). College Park, MD: University of Maryland.
24. Lissitz, R., Li*, Y., & **Jiao, H.** (2009). *Investigation of Factorial Structure of the 2009 HSA Biology Test across Accommodated and non-accommodated Students*. (MARCES Technical Report). College Park, MD: University of Maryland.
25. **Jiao, H.**, Wang, S., Johnson, M., & Jiang, J. (2007). *Investigation of 2006 FCAT Reading Grade 3 Test*. (Research Report). San Antonio, TX: Harcourt Assessment.
26. **Jiao, H.** (2007). *The calibration, equating, and scaling specification for the spring 2007 test administration for the Mississippi Subject Area Testing Program*. (Technical Report). San Antonio, TX: Harcourt Assessment.
27. *Technical Report for the Michigan Educational Assessment Program 2006-2007 Cycle*. (2007). Harcourt Assessment Inc. San Antonio, TX.
28. *Technical Report for the Michigan Merit Exit Program 2006-2007 Cycle*. (2007). Harcourt Assessment Inc. San Antonio, TX.
29. **Jiao, H.** (2007). *The calibration, equating, and scaling specification for the fall 2006 test administration for the Mississippi Subject Area Testing Program*. (Technical Report). San Antonio, TX: Harcourt Assessment.
30. **Jiao, H.** (2006). *Sampling Design for the Michigan Educational Assessment Program*. (Technical Report). San Antonio, TX: Harcourt Assessment.
31. Vukmirovic, Z., & **Jiao, H.** (2006). *Calibration and equating options for FCAT writing + assessment*. (White Paper). San Antonio, TX: Harcourt Assessment.
32. **Jiao, H.** (2006). *Test Construction Specification for the Michigan Educational Assessment Program*. (Technical Report). San Antonio, TX: Harcourt Assessment.

33. **Jiao, H.**, Wang, S., He, W., & Vukmirovic, Z. (2006). *The comparability of the spring 2006 online pilot test and the paper-and-pencil tests for the Mississippi Subject Area Testing Program.* (Research Report). San Antonio, TX: Harcourt Assessment.
34. **Jiao, H.** (2006). *The test construction specification for the fall 2006 and spring 2007 test administrations for the Mississippi Subject Area Testing Program.* (Technical Report). San Antonio, TX: Harcourt Assessment.
35. **Jiao, H.** (2006). *The calibration, equating, and scaling specification for the spring 2006 test administration for the Mississippi Subject Area Testing Program.* (Technical Report). San Antonio, TX: Harcourt Assessment.
36. **Jiao, H.**, & Vukmirovic, Z. (2006). *The calibration, equating, and scaling specification for the Fall 2005 test administration for the Mississippi Subject Area Testing Program.* (Technical Report). San Antonio, TX: Harcourt Assessment.
37. Vukmirovic, Z., Jiang, J., & **Jiao, H.** (2005). *Comparison of different scoring methods of FCAT writing + assessments.* (Research Report). San Antonio, TX: Harcourt Assessment.
38. **Jiao, H.**, & Vukmirovic, Z. (2005). *The comparability of the spring 2005 online pilot test and the paper-and-pencil tests for Mississippi Subject Area Testing Program.* (Research Report). San Antonio, TX: Harcourt Assessment.
39. **Jiao, H.** (2005). *The test construction specification for the fall 2005 and spring 2006 test administrations for the Mississippi Subject Area Testing Program.* (Technical Report). San Antonio, TX: Harcourt Assessment.
40. **Jiao, H.**, & Vukmirovic, Z. (2005). *The calibration, equating, and scaling specification for the spring 2005 test administration for the Mississippi Subject Area Testing Program.* (Technical Report). San Antonio, TX: Harcourt Assessment.
41. **Jiao, H.**, Ayres, G, & Vukmirovic, Z. (2005). *Pre-equating vs. post-equating for Mississippi Subject Area Testing Program.* (Research Report). San Antonio, TX: Harcourt Assessment.
42. **Jiao, H.**, Ayres, G., & Vukmirovic, Z. (2005). *Impact of removing open-ended items from live administration for Mississippi Subject Area Testing Program.* (Research Report). San Antonio, TX: Harcourt Assessment.
43. **Jiao, H.**, Chu, K., & Vukmirovic, Z. (2005). *Comparison of writing prompts in field-test and live administration for Mississippi Subject Area Testing Program.* (Research Report). San Antonio, TX: Harcourt Assessment.
44. Wang, S, **Jiao, H.**, Young, M. J., Brooks, T., & Olson, J. (2005). *The effect of computerized test vs. paper-and-pencil test on K-12 student reading achievement: A meta-analysis.* (Research Report). San Antonio, TX: Harcourt Assessment.
45. **Jiao, H.**, Wang, S., Vukmirovic, Z., & Young, M. (2004). *A Study to Establishing the Vertical*

Scale for MCA-II Using the Stanford Achievement Test 10. (Research Report). San Antonio, TX: Harcourt Assessment.

46. **Jiao, H.**, Wang, S. & Vukmirovic, Z. (2004). *Dimensionality Assessment for MCAS Grade 4, 7, and 10 ELA 2003 Test Administration.* (Research Report). San Antonio, TX: Harcourt Assessment.
47. **Jiao, H.**, & Vukmirovic, Z. (2004). *Test construction specifications for Minnesota Academic Assessments-II 2005 pilot test administration.* (Technical report). Harcourt Assessment, Inc. San Antonio, TX.
48. Wang, S., **Jiao, H.**, Young, M. J., Brooks, T., & Olson, J. (2004). *The effect of computerized test vs. paper-and-pencil test on K-12 student mathematics achievement: A meta-analysis.* (Research Report). San Antonio, TX: Harcourt Assessment.
49. Wang, S., **Jiao, H.**, Brooks, T., & Young, M. J. (2004). *Construct equivalence of Stanford Diagnostic Reading Test (Fourth Edition) between two administration modes.* (Research Report). San Antonio, TX: Harcourt Assessment.
50. Wang, S., **Jiao, H.**, Young, M. J., & Brooks, T. (2004). *Construct equivalence between customized and original Stanford Achievement Reading Comprehension Tests (Tenth Edition).* (Research Report). San Antonio, TX: Harcourt Assessment.
51. Davis, J., **Jiao, H.**, Vukmirovic, A., & Young, M. J. (2004). *Comparison between pre-equating and post-equating for large-scale state assessment program.* (Research report), Harcourt Assessment Inc. San Antonio, TX.
52. Stephenson, A., **Jiao, H.**, & Wall, N. (2004). *A performance comparison of native and Non-native speakers of English on an English Language Proficiency Test.* (Research report). Harcourt Assessment, Inc. San Antonio, TX.
53. *Nevada Technical Report for the CRT and HSPE Assessments 2002-2003 Cycle.* (2004). Harcourt Assessment Inc. San Antonio, TX.
54. **Jiao, H.**, & Paek, I. (2002). *Examining the relationship between the full and the abbreviated versions of the Stanford Diagnostic Tests for Reading and Mathematics.* Harcourt Educational Measurement. San Antonio, TX.
55. Cerrillo, T., Young, M. J., Skorupski, W., **Jiao, H.**, Paek, I., Shin, S., & Turner, J. (2002). *Performance Assessment research program: Analyses of bias and Differential Item Functioning on the New Standards Reference Examinations (Form E).* Harcourt Educational Measurement, San Antonio, TX.

D. BOOK REVIEWS, OTHER ARTICLES, NOTES

1. **Jiao, H.** (2020). Book review: Sociocognitive Foundations of Educational Measurement. *Measurement: Interdisciplinary Research and Perspectives*, 16(2).
2. Liao*, M., & **Jiao, H.** (2018). Book review: Psychometric Methods: Theory in Practice, by L. R. CV: H. Jiao

Price. *Psychometrika*. doi: 10.1007/s11336-018-9625-x

3. Qiao*, X., & **Jiao, H.** (2018). Book review: Bayesian psychometric modeling. *Measurement: Interdisciplinary Research and Perspectives*, 16(2).
4. **Jiao, H.** (2011). Book review: Bayesian Item Response Theory Modeling. *Psychometrika*. 76(2), 360-362.
5. **Jiao, H.** (2009). Diagnostic classification models: Which one should I use? *Measurement: Interdisciplinary Research & Perspective*, 7(1), 65-67.

E. TALKS, ABSTRACTS, AND OTHER PROFESSIONAL PAPERS PRESENTED

Invited Talks

1. **Jiao, H.** (2019, August). *Joint modeling of item responses and response time for cognitive diagnosis*. Presented at the third Summit on AI and Big Data in Education in China, Beijing, China.
2. **Jiao, H.** & Zhan, P. (2018, July). *Technology-enhanced innovative science assessment*. Presented at the Second National Conference on STEM Education in China, Shenzhen, China.
3. **Jiao, H.** (2018, June). *Development and modeling of technology-enhanced innovative assessment*. Presented at East China Normal University, Shanghai, China.
4. **Jiao, H.** (2018, June). *Modeling of technology-enhanced innovative assessment data*. Presented at Beijing Normal University, Beijing, China.
5. **Jiao, H.** (2018, June). *Joint modeling for product data and process data for cognitive diagnosis*. Presented at Jianxi Normal University, Nanchang, Jiangxi Province, China.
6. **Jiao, H.,** Zhan*, P., Liao*, M., & Man*, K. (2017, November). *A joint multigroup testlet model for responses and response time accounting for differential item and speed functioning*. Presented at the fifth conference on the statistical methods in psychometrics. Columbia University, New York.
7. **Jiao, H.** (2015, April). *A multilevel testlet model for mixed-format tests*. Invited presentation at the Annual Meeting of the National Council on Measurement in Education for the Bradley Hanson Award for Contributions to Educational Measurement, Chicago, Illinois.
8. **Jiao, H.,** Kamata, A., & Xie, C. (2014, November). *A multilevel cross-classified testlet model for complex item and person clustering in item response modeling*. Presented at the conference on Advances in multilevel modeling for educational research: Addressing practical issues found in real-world applications. University of Maryland, College Park.
9. **Jiao, H.,** & Lissitz, R. (2014, October). *Exploring a psychometric model for calibrating innovative items embedded in multiple contexts*. Presented at the 14th Annual Maryland

Assessment Conference: *Technology enhanced innovative assessment: Development, modeling, and scoring from an interdisciplinary perspective*. University of Maryland, College Park.

10. **Jiao, H.** & Yang, X. (2014, May). *A multicomponent testlet model*. Presented at the Third Workshop on Statistical Methods in Cognitive Assessments. Fudan University, Shanghai, China.
11. **Jiao, H.** (2014, February). *Polytomous multilevel testlet models for testlet-based assessments with complex sampling designs*. Presented at the Joint Program in Survey Methodology, University of Maryland, College Park.
12. **Jiao, H.,** & Lissitz, R. (2012, October). *Modeling latent growth using mixture item response theory*. Presented in the Twelfth Annual Maryland Assessment Conference: *Value Added Modeling and Growth Modeling with Particular Application to Teacher and School Effectiveness*. University of Maryland, College Park.
13. **Jiao, H.** (2011, July). *Item response theory models for locally dependent item response data*. Presented in the Workshop on *Modern Psychometric and Statistical Methods for Large-Scale Education Assessments*. Beijing Normal University, Beijing, China.
14. **Jiao, H.** (2011, July). *Current status in K-12 state assessment programs in the USA*. Presented at the Morning Star company, Guangzhou, China.
15. **Jiao, H.** (2010, February). *Effects of items and person clustering on measurement precision*. Invited presentation at the Educational Psychology Colloquium in the Department of Human Development, University of Maryland, College Park.
16. **Jiao, H.,** & Wang, S. (2004, August). *Psychometric issues in developing Stanford English proficiency test*. Presented at the International Examination Forum. Tianjin, China.
17. Wang, S., & **Jiao, H.** (2004, August). *Development of Stanford achievement and diagnostics Test*. Presented at the International Examination Forum. Tianjin, China.

Refereed National and International Conference Proceedings

1. **Jiao, H.,** Liao*, M., & Wang*, W. (2019, July). *Joint modeling of responses and response time for cognitive diagnosis at the subdomain level*. Paper presented at the International Meeting of the Psychometric Society. Chile.
2. **Jiao, H.,** & Qiao*, X. (2019, July). *Understanding problem-solving strategies by analyzing log files from multiple items using data mining methods*. Paper presented at the International Meeting of the Psychometric Society. Chile.
3. Liao*, D., He, Q., & **Jiao, H.** (2019, April). *Mapping background variables with sequential patterns in problem-solving tasks*. Paper presented at the annual meeting of the National Council on Measurement in Education, Toronto, Canada.
4. Zhan, P., **Jiao, H.,** Wang, W.-C., & Man*, K. (2019, April). *A multidimensional hierarchical framework for modeling speed and ability in computer-based multidimensional tests*. Paper

presented at the annual meeting of the National Council on Measurement in Education, Toronto, Canada.

5. **Jiao, H.**, Liao*, M., Liao, D., & Zhan, P. (2019, April). *Multigroup cognitive diagnostic joint modeling for responses and response time*. Paper presented at the Annual Meeting of the National Council on Measurement in Education. Toronto, Canada.
6. Liao*, M., Patton, J., Yan, R., & **Jiao, H.** (2019, April). *Mining process data to detect item harvesters*. Paper presented at the annual meeting of the National Council on Measurement in Education, Toronto, Canada.
7. Liao*, M., & **Jiao, H.** (2019, April). *Module assembly and routing of cognitive diagnostic multistage adaptive test*. Paper presented at the annual meeting of the National Council on Measurement in Education, Toronto, Canada.
8. Wang*, W., **Jiao, H.**, & Sun*, J. (2019, April). *Estimating students' topic-level abilities using extended higher-order IRT models*. Paper presented at the Annual Meeting of the National Council on Measurement in Education. Toronto, Canada.
9. **Jiao, H.**, Liao*, M., & Zhan*, P. (2018, July). *Multigroup cognitive diagnosis modeling for responses and response time*. Paper presented at International Test Commission Conference. Montreal, Canada.
10. Qiao*, X., & **Jiao, H.** (2018, July). *Comparing data mining methods and psychometric models in analyzing process data and response data*. Paper presented at the 2018 annual conference of International Meeting of the Psychometric Society (IMPS), New York City, NY.
11. **Jiao, H.**, Liao*, M., & Zhan*, P. (2018, April). *Cognitive diagnostic modeling using responses and response times for items embedded in multiple contexts*. Paper presented at the Annual Meeting of the National Council on Measurement in Education. New York City, NY.
12. Li*, C. & **Jiao, H.** (2018, April). *Subscore reporting for double-coded items embedded in multiple contexts*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, New York, NY.
13. Zhan, P., Ma, W., **Jiao, H.**, & Ding, S. (2018, April). *A sequential higher-order latent structural model for hierarchical attributes*. Paper presented at the annual meeting of the National Council on Measurement in Education, New York.
14. Liao*, D., **Jiao, H.**, & Zhan*, P. (2018, April). *A multigroup testlet model for cognitive diagnosis*. Paper presented at the annual meeting of the 2018 National Council on Measurement in Education, New York, NY.
15. Liao*, M., & **Jiao, H.** (2018, April). *Incorporating item features into diagnostic classification models*. Paper presented at the Annual Meeting of the National Council on Measurement in Education. New York City, NY.

16. Qiao*, X., & **Jiao, H.** (2018, April). *Impact of nonignorable missing data on the performance of person fit statistic*. Paper presented at the annual meeting of the National Council on Measurement in Education (NCME), New York City, NY.
17. **Jiao, H.**, Zhan*, P., & Luo, Y. (2017, July) *A non-compensatory Rasch testlet model for items embedded in multiple contexts*. Paper presented at the International Meeting of Psychometric Society, Zurich, Switzerland.
18. Zhan*, P., **Jiao, H.**, & Liao*, D. (2017, July). *Cognitive diagnosis modeling incorporating item response times*. Paper presented at the 2017 International Meeting of the Psychometric Society, Zurich.
19. **Jiao, H.**, Luo, Y., Man*, K., & Liao*, D. (2017, April). *Bayesian estimation of item response theory model parameters using OpenBUGS and Stan*. Pre-conference training session at the Annual Meeting of the National Council on Measurement in Education. San Antonio, Texas.
20. Liao*, M. & **Jiao, H.** (2017, April). *Incorporating covariates in log-linear cognitive diagnosis model*. Paper presented at the Annual Meeting of the National Council on Measurement in Education. San Antonio, Texas.
21. Liao*, D., **Jiao, H.**, & Lei, M. (2017, April). *Method comparison of equating testlet-based tests with mixed-format items*. Paper presented at the 2017 annual meeting of the National Council on Measurement in Education, San Antonio, TX.
22. Olsen*, E. & **Jiao, H.** (2017, April). *Mixture MIRID*. Paper presented at the Annual Meeting of the National Council on Measurement in Education. San Antonio, Texas.
23. Man*, K. & **Jiao, H.** (2017, April). *Robust Bayesian estimation of latent parameters in item response models ignoring existence of aberrance behaviors*. Paper presented at the Annual Meeting of the National Council on Measurement in Education. San Antonio, Texas.
24. Man*, K., & **Jiao, H.** (2016, July). *Directional local dependency testlet model*. Paper presented at the International Meeting of the Psychometric Society, Asheville, NC.
25. Li*, C., **Jiao, H.**, & Lissitz, R. W. (2016, July) *Comparing pattern scoring with number-correct scoring in mixed-format tests*. Paper presented at the International Meeting of the Psychometric Society, Asheville, NC.
26. **Jiao, H.**, Zou*, J., Liao*, D., Li*, C., & Lissitz, R. W. (2016, April). *A comparison of methods to link a state test to the PARCC consortium test*. Paper presented at the Annual Meeting of the National Council on Measurement in Education. Washington D.C.
27. Zhan*, P., & **Jiao, H.** (2017, December). *A sequential higher-order latent structure model for hierarchical attributes in cognitive diagnoses*. Paper presented at the 2017 World Educational Research Association & Hong Kong Educational Research Association, Hong Kong.
28. Man*, K. **Jiao, H.**, & Ouyang, Y. (2016, April). *Response time based nonparametric person fit index for aberrant response behavior detection in large-scale assessment*. Paper presented at the

Annual Meeting of the National Council on Measurement in Education. Washington D.C.

29. Li*, C. & **Jiao, H.** (2016, April). *A multilevel cross-classified dichotomous Item Response Theory model for complex person clustering structures*. Paper presented at the Annual Meeting of the National Council on Measurement in Education. Washington D.C.
30. Liao*, D., **Jiao, H.**, & Lissitz R. W. (2016, April). *A conditional IRT model for directional local item dependency in multipart items*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Washington, D.C.
31. Li*, M., **Jiao, H.**, & Lissitz, R. W. (2016, April). *The impact of ignoring multiple-group structure in testlet-based tests on ability estimation*. Presented at the Annual Meeting of the National Council on Measurement in Education, Washington, D.C.
32. Kang*, Y., **Jiao, H.**, & Lissitz, R. W. (2016, April). *The impact of ignoring the multiple-group structure of item response data*. Presented at the Annual Meeting of the National Council on Measurement in Education, Washington, D.C.
33. Bryant*, R. & **Jiao, H.** (2016, April). *Investigating item parameter drift amplification and cancellation at the testlet-level on model parameter estimation*. Presented at the Annual Meeting of the National Council on Measurement in Education, Washington, D.C.
34. Li*, C. & **Jiao, H.** (2016, April). *Modeling learning growth with a cross-classified multilevel IRT model*. Paper presented at the Annual Meeting of the American Educational Research Association. Washington D.C.
35. Liao*, D. & **Jiao, H.** (2016, April). *A multi-group cross-classified testlet model for dual local item dependence in the presence of DIF items*. Paper presented at the 18th International Objective Measurement Workshop, Washington, D.C.
36. Liao*, M. & **Jiao, H.** (2016, April). *A combination of diagnostic classification model and IRT model with testlet effects*. Paper presented at the 18th International Objective Measurement Workshop, Washington, D.C.
37. Zheng*, Y., & **Jiao, H.** (2016, April). *Comparison of classification accuracy based on IRT and measurement decision theory on tests with polytomous items*. Paper presented at the 18th International Objective Measurement Workshop, Washington, D.C.
38. Man*, K., & **Jiao, H.** (2016, April). *New response time based index for detecting aberrant behavior*. Paper presented at the 18th International Objective Measurement Workshop, Washington, D.C.
39. **Jiao, H.**, Wolfe, E., Foltz, P., & Harrell-Williams, L. M. (2015, Nov.). *Distributional agreement indices for evaluating the performance of automated scoring*. Presentation at the Annual Meeting of the AEA-Europe Conference, Glasgow, England.
40. Song, T., Wolfe, E., & **Jiao, H.** (2015, Nov.). *What makes an essay difficult to score*. Presentation at the Annual Meeting of the AEA-Europe Conference, Glasgow, England.

41. Li*, C., **Jiao, H.**, & Liao*, D. (2015, July). *A multilevel cross-classified polytomous item response theory model for complex person clustering structures*. Paper presented at the Annual International Meeting of the Psychometric Society. Beijing, China.
42. **Jiao, H.**, Dogan, E., & Lissitz, R. W. (2015, April). *Modeling local item dependence in multipart items using item splitting*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Chicago, Illinois.
43. Liao*, D. & **Jiao, H.** (2015, April). *A multilevel Graded Response testlet model with complex sampling designs*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Chicago, Illinois.
44. Li*, T. & **Jiao, H.** (2015, April). *Guessing detection using hybrid mixture IRT model with response times*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Chicago, Illinois.
45. Zheng*, X., **Jiao, H.**, & Zheng*, Q. (2015, April). *Evaluating dimensionality assessment procedures in complex-structure noncompensatory framework*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Chicago, Illinois.
46. **Jiao, H.**, Bryant*, R., & Luo, Y. (2014, October). *Random vs. adaptive assignment of field-test items in computerized adaptive tests*. Paper presented at the Annual Meeting of the International Association of Computerized Adaptive Testing. Princeton, New Jersey.
47. Luo*, Y., **Jiao, H.**, & Lissitz, R. (2014, July). *An Empirical study of the impact of the choice of persistence model in value-added modeling upon teacher effect estimates*. Paper presented at the Annual International Meeting of the Psychometric Society. Madison, Wisconsin.
48. **Jiao, H.**, & Wang, S. (2014, April). *Modeling complex binary item responses with an IRT model with internal restrictions on item difficulty*. Paper presented at the 2014 Annual Meeting of the National Council on Measurement in Education, Philadelphia, PA.
49. Song, T., Wolfe, E., & **Jiao, H.** (2014, April). *Features of difficult-to-score essays*. Paper presented at the 2014 Annual Meeting of the National Council on Measurement in Education, Philadelphia, PA.
50. Xie*, C., & **Jiao, H.** (2014, April). *Cross-classified modeling of dual local item dependence*. Paper presented at the 2014 Annual Meeting of the National Council on Measurement in Education, Philadelphia, PA.
51. Li*, T., Li*, M., **Jiao, H.**, & Lissitz, R. (2014, April). *Bias in multilevel IRT estimation of teacher effectiveness*. Paper presented at the 2014 Annual Meeting of the National Council on Measurement in Education, Philadelphia, PA.
52. **Jiao, H.**, Wolfe, E., & Song, T. (2014, April). *Guessing in Rasch modeling*. Paper presented at the 2014 International Objective Measurement Workshop, Philadelphia, PA.
53. **Jiao, H.** & Macready, G. (2013, July). *Mixture hybrid Item Response Theory modeling with*

different functional forms across latent classes. Paper presented at the Annual Meeting of the Psychometric Society. Arnhem, Netherland.

54. **Jiao, H.**, Kamata, A., Van Wie*, A., & Luo*, Y. (2013, April). *A multilevel testlet model for multiple hierarchical levels of person clustering effects*. Paper presented at the 2013 Annual Meeting of the National Council on Measurement in Education, San Francisco, CA.
55. Li*, T., **Jiao, H.**, Haring, J., & Macready, G. (2013, April). *Adding covariates to mixture item response models: a comparison of different approaches*. Paper presented at the 2013 Annual Meeting of the National Council on Measurement in Education, San Francisco, CA.
56. Chen*, Y.-F., von Davier, M., & **Jiao, H.** (2013, April). *Comparison of different approaches to dealing with testlet effects in mixture item response theory modeling*. Paper presented at the 2013 Annual Meeting of the National Council on Measurement in Education, San Francisco, CA.
57. Chen*, Y.-F., & **Jiao, H.** (2013, April). *Evaluating parameter recovery in the mixture Rasch model based computerized adaptive tests with missing data*. Paper presented at the 2013 Annual Meeting of the American Educational Research Association, San Francisco, CA.
58. Li*, T., Xie*, C., & **Jiao, H.** (2013, April). *Assessing fit of alternative polytomous item response models using posterior predictive model checking*. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.
59. Xie*, C., & **Jiao, H.** (2013, April). *The Rasch model plus ability based slipping*. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.
60. Xie*, C., Li*, T., Rupp, A., & **Jiao, H.** (2013, April). *Posterior predictive model checking for dichotomous item response theory models with upper asymptote effects*. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.
61. Xie*, C., Lissitz, R., **Jiao, H.**, Kang*, Y., & Li*, M (2013, April). *Accounting for team-teaching in value-added modeling of teacher effectiveness: a real data analysis*. Paper presented at the annual meeting of the American Educational Research Association, Division D 2013 In-Progress Research Gala, San Francisco, CA.
62. **Jiao, H.**, Macready, G., & Johnson, M. (2012, July). *A four-parameter mixture Item Response Theory model*. Paper presented at the Annual Meeting of the Psychometric Society. Lincoln, Nebraska.
63. van Wie*, A., **Jiao, H.**, & Luo*, Y. (2012, July). *A four-level IRT for simultaneous evaluation of student, teacher, and school effects*. Paper presented at the Annual Meeting of the Psychometric Society. Lincoln, Nebraska.
64. Luo*, Y., **Jiao, H.**, & van Wie*, A. (2012, July). *A four-level three-parameter IRT*. Paper presented at the Annual Meeting of the Psychometric Society. Lincoln, Nebraska.
65. Chen*, Y. F., & **Jiao, H.** (2012, July). *Does model misspecification lead to spurious latent classes in the population?* Paper presented at the Annual Meeting of the Psychometric Society. Lincoln, Nebraska.

66. Chen*, Y. F., & **Jiao, H.** (2012, April). *The impact of missing responses on parameter estimation and classification accuracy in a mixture Rasch model*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Vancouver, Canada.
67. Xie*, C., & **Jiao, H.** (2012, April). *A four-parameter multidimensional item response theory model*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Vancouver, Canada.
68. Cho*, Y., **Jiao, H.**, & Macready, G. (2012, April). *Simultaneous effects of different item discrimination profiles and item difficulty profiles in mixture 2PL models*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Vancouver, Canada.
69. Cho*, Y., **Jiao, H.**, & Macready, G. (2012, April). *Assessing the effects of different item parameter profiles in mixture Rasch models*. Paper presented at the Annual Meeting of the American Educational Research Association, Vancouver, Canada.
70. Chen*, Y. F., & **Jiao, H.** (2012, April). *Detection of aberrant respondents based on the mixture Rasch model*. Paper presented at the 18th International Objective Measurement Workshop. Vancouver, Canada.
71. Zhu*, X., & **Jiao, H.** (2012, April). The testlet effect in vertical scaling. Paper presented at the 18th International Objective Measurement Workshop. Vancouver, Canada.
72. **Jiao, H.**, Macready, G., Zhu, J., & An*, W. (2011). *A modified three-parameter logistic item response theory with varying upper asymptote effects*. Paper presented at the Annual Meeting of the Psychometric Society. Hong Kong, China.
73. **Jiao, H.**, Macready, G., Liu*, J., & Cho*, Y. (2011, April). *A mixture Rasch model based computerized classification test*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, New Orleans, LA.
74. **Jiao, H.**, Lissitz, R., & Zhu*, X. (2011, April). *Constructing a common scale in a testing program to model growth: Joint consideration of vertical scaling and horizontal equating*. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA.
75. **Jiao, H.**, Mislevy, R., & Zhang*, Y. (2011, April). *A general framework for clustering effects in IRT modeling*. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA.
76. **Jiao, H.**, von Davier, M., Kamata, A., & Chen*, Y-F. (2011, April). *A multilevel Rasch mixture testlet model*. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA.
77. Liu*, J., & **Jiao, H.** (2011, April). *A comparison of estimation methods for an explanatory IRT model with person covariates in generalized (non)linear mixed model framework*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, New Orleans, LA.

78. Lu*, R., & **Jiao, H.** (2011, April). *Modeling local item dependence in multistage tests*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, New Orleans, LA.
79. Chen*, Y-F., & **Jiao, H.** (2011, April). *Explanation of latent differential item functioning based on a mixture Rasch model: characterizing latent classes with the inclusion of background and cognitive-related covariates*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, New Orleans, LA.
80. Patarapichayatham*, C., Kamata, A., & **Jiao, H.** (2011, April). *Evaluation of the ability estimates under the bi-factor testlet model*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, New Orleans, LA.
81. **Jiao, H.**, Kamata, A., & Binici, S. (2010, July). *The effects of ignoring item and person clustering on ability estimation and proficiency classification across years*. Paper presented at the annual conference of the Psychometric Society. Athens, GA.
82. Choi*, Y., & **Jiao, H.** (2010, July). *The effects of model misspecification on the identification of latent classes in the mixture Item Response Theory Models*. Paper presented at the International Meeting of the Psychometric Society. Athens, GA.
83. Cho*, Y., von Davier, M., **Jiao, H.**, & Macready, G. (2010, July). *A comparison of classification consistency obtained with unidimensional IRT models and mixture generalized diagnostic models*. Paper presented at the International Meeting of the Psychometric Society. Athens, GA.
84. Liu*, M. & **Jiao, H.** (2010, April). *Comparing estimation methods for mixture Rasch model*. Paper presented at the 15th International Objective Measurement Workshop meeting, Denver, CO.
85. **Jiao, H.**, & von Davier, M. (2010, April). *Parameter estimation of the Rasch mixture testlet model using the marginal maximum likelihood method*. Paper presented at the Annual Meeting of the American Educational Research Association, Denver, CO.
86. **Jiao, H.**, Kamata, A., Wang, S., & Jin, Y. (2010, April). *Simultaneous modeling of item and person dependence using multilevel Rasch measurement model*. Paper presented at the Annual Meeting of the American Educational Research Association, Denver, CO.
87. **Jiao, H.**, von Davier, M., & Wang, S. (2010, April). *Polytomous mixture Rasch testlet model*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Denver, CO.
88. **Jiao, H.**, Lissitz, B., Macready, G., Wang, S., & Liang*, S. (2010, April). *Exploring using the Mixture Rasch Model for standard setting*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Denver, CO.
89. Li*, Y., & **Jiao, H.** (2010, April). *Multilevel polytomous testlet model*. Paper presented at the

Annual Meeting of the National Council on Measurement in Education, Denver, CO.

90. Li*, Y., **Jiao, H.**, & Lissitz, B. (2010, April). *Investigation of content clustering in large-scale science assessments using Rasch multidimensional IRT and testlet models*. Paper presented at the NCME Graduate Student Poster Session, Denver, CO.
91. Lu*, R. & **Jiao, H.** (2010, April). *The effects of LID on multistage CAT*. Paper presented at the National Council on Measurement in Education, Denver, CO.
92. Wang, S., **Jiao, H.**, & Jin, Y. (2010, April). *Effect of ignoring hierarchical data structures on accuracy of vertical scaling: A mixed-effects Rasch Model approach*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Denver, CO.
93. Wang, S. & **Jiao, H.** (2010, April). *Modeling LID in science assessments*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Denver, CO.
94. **Jiao, H.**, Wang, S., & Lu*, R. (2009, April). *Mixture Rasch model for dichotomously scored testlet-based assessments*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, San Diego, CA.
95. Lu*, R., & **Jiao, H.** (2009, April). *Detecting DIF using mixture Rasch model*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, San Diego, CA.
96. Wang, S., & **Jiao, H.** (2009, April). *Exploring relationship between static and dynamic vertical scaling from cross-section and longitudinal design perspective*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, San Diego, CA.
97. **Jiao, H.**, & Wang, S., (2009, April). *The effects of anchor item selection on IRT true score equating with nonequivalent-group anchor-test design*. Paper accepted at the Annual Meeting of the American Educational Research Association, San Diego, CA.
98. **Jiao, H.**, Wang, S., Wan, L., & Lu*, R. (2009, April). *Investigation of local item dependence in scenario-based science assessments*. Paper accepted at the Annual Meeting of the American Educational Research Association, San Diego, CA.
99. Wang, S., & **Jiao, H.** (2009, April). *A longitudinal study of achievement gap: Gender and ethnicity difference in reading and mathematics progress*. Paper accepted at the Annual Meeting of the American Educational Research Association, San Diego, CA.
100. **Jiao, H.**, Wang, S., & Binici, S. (2008, November). *Applications of testlet models in investigation of content clustering in large-scale science assessments*. Paper presented at the Annual Meeting of the Florida Educational Research Association, FL.
101. **Jiao, H.**, & Wang, S. (2008, March). *Construct equivalence for vertically scaled science assessment*. Paper presented at the Annual Meeting of the American Educational Research Association, New York City, NY.
102. **Jiao, H.**, Wang, S., & He*, W. (2008, March). *The sensitivity of Yen's Q_3 statistics in detecting*

local item dependence. Paper presented at the Annual Meeting of the American Educational Research Association, New York City, NY.

103. **Jiao, H.**, Wang, S., & He*, W. (2008, March). *Comparison of estimation methods of one-parameter testlet model*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, New York City, NY.
104. Wang, S., & **Jiao, H.** (2008, March). *Empirical evidence of construct equivalence of vertical scale across grades in K-12 large-scale standardized reading assessments*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, New York City, NY.
105. Wang, S., & **Jiao, H.** (2008, March). *Does large-scale standardized test violate the unidimensionality across grades? An empirical study of construct invariance of vertical scale of mathematics test*. Paper presented at the Annual Meeting of the American Educational Research Association, New York City, NY.
106. Wang, S., & **Jiao, H.** (2008, June). *Validity of accommodated state assessments*. Paper presented at the National Conference of the Large-scale Assessment, Orlando, FL.
107. **Jiao, H.**, Wang, S., & Binici, S. (2007, November). *Investigating the comparability between online and paper-and-pencil versions of large-scale high school exit examinations*. Paper presented at the Annual Meeting of the Florida Educational Research Association, Tampa, FL.
108. Wang, S., **Jiao, H.**, & Young, M. J. (2007, November). *Effectiveness of using Stanford English Language Proficiency Test to identify English Language Learners*. Paper presented at the Annual Meeting of the Florida Educational Research Association, Tampa, FL.
109. **Jiao, H.**, & Wang, S. (2007, April). *The effects of the selection of vertical linking items on modeling student growth*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Chicago, IL.
110. **Jiao, H.**, & Wang, S. (2007, April). *The choice of vertical linking items on vertical scaling*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.
111. **Jiao, H.**, & Wang, S. (2007, June). *Validity of assessing limited English proficiency student in state assessment programs*. Paper presented at the National Conference of the Large-scale Assessment, Nashville, TN.
112. He*, W., Wang, S., & **Jiao, H.** (2007, April). *Robustness of the SPRT procedure in CMT when local item independence assumption is violated*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Chicago, IL.
113. Wang, S., **Jiao, H.**, Young, M., Olson, J., & Brooks, T. (2007, April). *A meta-analysis of testing mode effects in K-12 reading assessments*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.
114. Wang, S., & **Jiao, H.** (2007, April). *Construct validity and measurement invariance of large-scale standardized reading and mathematics tests under disability and LEP accommodations in*

K-12 education. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.

115. Wang, S., Young, M., Brooks, T., **Jiao, H.**, & Skoglund, G. (2007, April). *A Comparison of computer-automated and human scoring methods for a large scale state-wide writing assessment in K-12 education*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Chicago, IL.
116. **Jiao, H.**, & Wang, S. (2006, June). *Comparison of vertical linking designs*. Paper presented at the National Conference of the Large-scale Assessment, San Francisco, CA.
117. **Jiao, H.**, Wang, S., Kamata, A., & Miyazaki, Y. (2006, April). *An investigation of local item dependence using multilevel testlet model*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, San Francisco, CA.
118. **Jiao, H.**, Wang, S., Yi, Q., & Vukmirovic, Z. (2006, April). *The equivalence of the computer-based and paper-and-pencil versions of a large-scale diagnostic reading test*. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.
119. Lau, A. C., **Jiao, H.**, & Lam, W. (2006, April). *A simulation study to compare pattern scoring and number-correct scoring with 3PL-IRT model*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, San Francisco, CA.
120. **Jiao, H.**, Wang, S., & Vukmirovic, Z. (2006, April). *Investigation of local item dependence in scenario-based science assessment*. Paper presented at the 13th International Objective Measurement Workshop, San Francisco, CA.
121. Wang, S., **Jiao, H.**, Young, M., & Jin, Y. (2006, April). *The effects of linking designs in vertical scaling on the growth patterns of student achievement*. Paper presented at the 13th International Objective Measurement Workshop, San Francisco, CA.
122. Wang, S., **Jiao, H.**, & Young, M. (2006, April). *The robustness of unidimensional Rasch Measurement Model to multidimensional data in vertical scaling*. Paper presented at the 13th International Objective Measurement Workshop, San Francisco, CA.
123. Wang, S. & **Jiao, H.** (2005, June). *Cost-benefits of using computerized adaptive test for large-scale state assessment*. In the session of "Technical and Policy Issues in Using Computerized Adaptive Tests in State Assessments: Promises and Perils". Paper presented at the National Conference of the Large-scale Assessment. San Antonio, TX.
124. **Jiao, H.**, Ro, S., Vukmirovic, Z., & Wang, S. (2005, April). *A comparison of different designs for calibrating mixed format items in a stand-alone field test*. Paper presented at the Annual Meeting of the American Educational Research Association, Montreal, Canada.
125. Vukmirovic, Z., **Jiao, H.**, & Turhan, A. (2005, April). *A comparison among different methods used to establish a common metric for field-test items*. Paper presented at the Annual Meeting of the American Educational Research Association, Montreal, Canada.

126. Wang, S., **Jiao, H.**, & Severance, N. (2005, April). *An investigation of growth patterns of student achievement using unidimensional and multidimensional vertical scale methods*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Montreal, Canada.
127. Wang, S., **Jiao, H.**, & Brooks, T. (2005, April). *Construct equivalence between customized and original standardized reading comprehension tests*. Paper presented at the Annual Meeting of the American Educational Research Association, Montreal, Canada.
128. **Jiao, H.**, & Lau, A. (2004, August). *Mixing linear and adaptive algorithms in computerized classification test*. Paper presented at the 28th International Congress of Psychology. Beijing, China.
129. **Jiao, H.**, & Wang, S., & Vukmirovic, Z. (2004, August). *The effects of random sampling on the Mantel Statistics*. Paper presented at the 28th International Congress of Psychology. Beijing, China.
130. **Jiao, H.**, & Wang, S., & Vukmirovic, Z. (2004, August). *Consistency of using different matching variables in detecting Differential Item Functioning*. Paper presented at the 28th International Congress of Psychology. Beijing, China.
131. **Jiao, H.**, Wang, S., Lau, A. C., & Zhang, H. (2004, August). *Comparison of computerized adaptive test and computerized classification test in making dichotomous classification decisions*. Paper presented at the 28th International Congress of Psychology. Beijing, China.
132. **Jiao, H.**, Wang, S., & Lau, A. C. (2004, August). *An investigation of two combination procedures of SPRT for three-category classification decisions in computerized classification test*. Paper presented at the Annual Meeting of American Educational Research Association. San Diego, CA.
133. Lau, A. C., **Jiao, H.**, & Lam, W. (2004, April). *A simulation study to investigate the properties of pattern scoring and number-correct scoring using IRT model*. Paper presented at the Annual Meeting of American Educational Research Association, San Diego, CA.
134. Stephenson, A., & **Jiao, H.** (2004, April). *Comparison of native and non-native speakers of English on an English language proficiency test*. Paper presented at the Annual Meeting of American Educational Research Association, San Diego, CA.
135. **Jiao, H.**, & Kamata, A. (2003, April). *Model comparisons in the presence of local item dependence*. Paper presented at the Annual Meeting of American Educational Research Association, Chicago, IL.
136. **Jiao, H.**, & Lau, A. C. (2003, April). *The effects of model misfit in computerized classification test*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Chicago, IL.
137. Stephenson, A., & **Jiao, H.** (2003, April). *Classification of students' English proficiency with Discriminant Analysis*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.

Unrefereed National and International Conference Proceedings

1. Man*, K., **Jiao, H.**, Zhan, P., & Huang, C.-Y. (2017, May). *A conditional joint modeling approach for compensatory multidimensional item response model and response times*. Paper presented at the annual meeting of the Modern Modeling Methods Conference, Storrs, Connecticut.
2. Li*, C., Liao*, D., Zou* J., **Jiao, H.**, & Lissitz, R. W. (2016, June). *Investigating the concordance relationship between the MSA and PARCC scores using propensity score matching and extrapolation methods*. Paper presented at the Maryland State Department of Education Data Summit, Ellicott City, MD.
3. Liao*, D., Li*, C., **Jiao, H.**, & Lissitz, R. W. (2016, June). *Investigating the relationship between PARCC test scores and college admission test scores: SAT/ACT/PSAT*. Paper presented at the Maryland State Department of Education Data Summit, Ellicott City, MD.
4. Zou*, J., **Jiao, H.**, Liao*, D., Li*, C., & Lissitz, R. W. (2016, June) *Linking HSA to the PARCC consortium test*. Paper presented at the Maryland State Department of Education Data Summit, Ellicott City, MD.
5. Man*, K., & **Jiao, H.** (2016, May). *Modeling directional local item dependence*. Paper presented at the Modern Modeling Methods Conference, University of Connecticut, Storrs, CT.
6. **Jiao, H.** & Yao, L. (2014, August). *Estimation of noncompensatory multidimensional Rasch model*. Paper presented at the Meeting of the Pacific-Rim Objective Measurement Symposium. Guangzhou, China.
7. Luo, Y., & **Jiao, H.** (2014, May). *Estimation methods for four-level Rasch model*. Poster presented at the conference on the Frontiers of Hierarchical Modeling in Observational Studies, Complex Surveys and Big Data. College Park, Maryland.
8. Liao*, D., & **Jiao, H.** (2014, May). *Polytomous multilevel testlet models with complex sampling designs*. Poster presented at the conference on the Frontiers of Hierarchical Modeling in Observational Studies, Complex Surveys and Big Data. College Park, Maryland.
9. Li*, Y., **Jiao, H.**, & Lissitz, B. (2010, August). *Construct equivalence of a state high-school graduation test with and without accommodations*. Paper presented at the meeting of the International Commission of Testing, Hong Kong, China.

F. CONTRACTS AND GRANTS

External Funding

2015-2020 **Funding agency:** Maryland State Department of Education
PI
Title: Psychometric research and analysis for Maryland state assessment programs.

CV: H. Jiao

- 2019 **Funding agency:** Classic Learning Test
PI
Title: Norming Study of CLT.
- 2018-2019 **Funding agency:** Management Systems International
PI
Title: Linking assessments to a global standard with social moderation.
- 2018-2019 **Funding agency:** Classic Learning Test
PI
Title: Psychometric properties of CLT.
- 2017-2018 **Funding agency:** American Institute for Research
PI with CO-PIs: Dandan Liao and Qiwei He
Title: Using log files to identify sequential patterns in the PIAAC problem solving in technology-rich environment by U. S. adults' employment status.
- 2017 **Funding agency:** Delaware State Department of Education
PI
Title: Standard setting for SAT writing
- 2016 **Funding agency:** The Council of Chief State School Officers
PI
Title: Applying sampling weights in 2016-2017 Kindergarten Readiness Assessment for Maryland state.
- 2015-2016 **Funding agency:** The Partnership for Assessment of Readiness for College and Careers, Inc.
PI
Title: Investigating New York City students' performance on and experience with the 2015 PARCC pilot tests.
- 2014-2015 **Funding agency:** Management Systems International
PI
Title: Alignment study for University Readiness Test in Egypt.
- 2014-2015 **Funding agency:** Educational Records Bureau
PI
Title: Psychometric analysis for Comprehensive Testing Program 4.
- 2014-2015 **Funding agency:** NCS Pearson, Inc.
PI
Title: Multilevel modeling of rater effects
- 2014-2015 **Funding agency:** National Council on Measurement in Education
PI
Title: A multilevel testlet model for mixed-format tests
- 2014 **Funding agency:** American Registry of Diagnostic Medical Sonography
PI
Title: Standard setting for the PVI-China certification examination
Note: PVI= Physician in Vascular Interpretation
- 2013-2014 **Funding agency:** NCS Pearson, Inc.
PI
Title: Bayesian estimation of item response theory models and multilevel item response theory models
- 2010-2014 **Funding agency:** American Educational Research Association/National Science Foundation #DRL-0941014

- PI**
Title: Latent differential item functioning analysis for testlet-based assessments
 2009-2015 **Funding agency:** Maryland State Department of Education
CO-PI with PI: Robert Lissitz
- Title:** Psychometric research and analysis for Maryland state assessment programs.
 2009-2011 **Funding agency:** National Council of State Boards of Nursing, Joint Research Committee
CO-PI with PI: Kathleen C. Haynie
- Title:** A Partial Credit Modeling Study of NCLEX Innovative Items
 2003 **Funding agency:** University of Michigan, Ann Arbor
- PI**
Title: Evaluating the dimensionality of the Michigan English Language Assessment Battery

Internal Funding

- 2008-2009 **Funding agency:** College of Education, University of Maryland, College Park
PI
Title: Mixture Rasch Model for Dichotomously Scored Testlet Based Assessments
- 2008 **Funding agency:** The General Research Board (GRB), University of Maryland, GRB
PI
Title: The Effects of Anchor Item Selection on Item Response Theory True Score Equating in Nonequivalent-group Anchor-test Equating Design

Centers for Research, Scholarship and Creative Activities

Conference Organized (through center)

1. Conference Co-Organizer, *The international meeting for the psychometric society* (2020). Maryland Assessment Research Center (MARC), University of Maryland, College Park, MD.
2. Conference Co-Organizer, *Assessment on learning and instruction* (2019). Maryland Assessment Research Center (MARC), University of Maryland, College Park, MD.
3. Conference Co-Organizer, *Innovative psychometric modeling* (2018). Maryland Assessment Research Center (MARC), University of Maryland, College Park, MD.
4. Conference Co-Organizer, *Applications of artificial intelligence to assessment* (2017). Maryland Assessment Research Center (MARC), University of Maryland, College Park, MD.
5. Conference Co-Organizer, *Data analytics and psychometrics: Informing assessment practices* (2016). Maryland Assessment Research Center (MARC), University of Maryland, College Park, MD.
6. Conference Co-Organizer, *Test fairness in the new generation of large-scale assessment* (2015). Maryland Assessment Research Center (MARC), University of Maryland, College Park, MD.

7. Conference Co-Organizer, *Technology enhanced innovative assessment: Development, modeling, and scoring from an interdisciplinary perspective* (2014). Maryland Assessment Research Center (MARC), University of Maryland, College Park, MD.
8. Conference Co-Organizer, *The next generation of testing: Common core standards, Smarter-Balanced, PARCC, and the nationwide testing movement* (2013). Maryland Assessment Research Center (MARC), University of Maryland, College Park, MD.
9. Conference Co-Organizer, *Value added modeling and growth modeling with particular application to teacher and school effectiveness* (2012). Maryland Assessment Research Center (MARC), University of Maryland, College Park, MD.
10. Conference Co-Organizer, *Computers and their impact on state assessment: Recent history and predictions for the future* (2011). Maryland Assessment Research Center (MARC), University of Maryland, College Park, MD.

G. FELLOWSHIPS, PRIZES, AND AWARDS

- | | |
|-----------|--|
| 2014 | The Bradley Hanson Award for Contributions to Educational Measurement by National Council on Measurement in Education. |
| 2011 | The International Initiative Fellows Program at the College of Education, University of Maryland, College Park, MD. |
| 2010 | The American Educational Research Association Research Grant sponsored by the National Science Foundation. |
| 2009 | The GATE Fellows Program (Teaching Innovation Award) at the College of Education, University of Maryland, College Park, MD. |
| 2008 | The <i>SPARC</i> : Support Program for Advancing Research and Collaboration Award, College of Education, University of Maryland, College Park, MD. |
| 2008 | The General Research Board (GRB) Summer Award, University of Maryland, College Park, MD. |
| 2005 | The Revere Award for Customer Focus, Harcourt Assessment, Inc., San Antonio, TX |
| 2003 | The Spaan Fellowship, Funded research in Second or Foreign Language Testing, University of Michigan, Ann Arbor , MI. |
| 2002 | The Lenke Psychometric Fellowship, Harcourt Educational Measurement, San Antonio, TX. |
| 2002 | The Academic Conference Travel Award, Florida State University, Tallahassee, FL. |
| 1998-2001 | University Fellowship, Florida State University, Tallahassee, FL. |

- 1999-2000 Graduate Assistantship, Florida State University, Tallahassee, FL.
- 1999 Teaching Assistantship, Florida State University, Tallahassee, FL.
- 1996 Liu Yonglin Excellent Teaching Prize, Shanghai Jiao Tong University, Shanghai, China.
- 1996 Star Teacher, Shanghai Jiao Tong University, Shanghai, China.
- 1993 Teaching Excellence Award, Shanghai Jiao Tong University, Shanghai, China.
- 1992 The Excellent Graduate Award of Shanghai City, Shanghai Municipality, China.

H. EDITORSHIPS, EDITORIAL BOARDS, AND REVIEWING ACTIVITIES FOR JOURNALS AND OTHER LEARNING PUBLICATIONS

Editorships

- 2017-current Review Editor for *Quantitative Psychology and Measurement, Frontiers in Psychology*
- 2019-2020 Guest Associate Editor for the Research Topic on Cognitive diagnostic assessment for learning, *Quantitative Psychology and Measurement, Frontiers in Psychology*
- 2017-2019 Guest Associate Editor for the Research Topic on Process Data in Educational and Psychological Measurement, *Quantitative Psychology and Measurement, Frontiers in Psychology*
- 2017-2018 Co-editor for the book: *Applications of artificial intelligence to assessment*. Charlotte, NC: Information Age Publisher
- 2017-2018 Co-editor for the book: *Data analytics and psychometrics: Informing assessment practices*. Charlotte, NC: Information Age Publisher
- 2016-2017 Co-editor for the book: *Technology enhanced innovative assessment: Development, modeling, and scoring from an interdisciplinary perspective*. Charlotte, NC: Information Age Publisher
- 2016-2017 Guest editor for the Special Issue on Applied Educational Measurement of Pensamiento educativo, *Journal of Latin-American Education Research*
- 2016-2017 Co-editor for the book: *Test fairness in the new generation of large-scale assessment*. Charlotte, NC: Information Age Publisher
- 2016-2017 Co-editor for the book: *Technology enhanced innovative assessment: Development, modeling, and scoring from an interdisciplinary perspective*. Charlotte, NC: Information Age Publisher
- 2015 Co-editor for the book: *The next generation of testing: Common core standards, Smarter-Balanced, PARCC, and the nationwide testing movement*. Charlotte, NC: Information Age Publisher
- 2014 Co-editor for the book: *Value added modeling and growth modeling with particular application to teacher and school effectiveness*. Charlotte, NC: Information Age Publisher
- 2012 Co-editor for the book: *Computers and their impact on state assessment: Recent history and predictions for the future*. Charlotte, NC: Information Age Publisher

Editorial Boards

2019 –current	Editorial Board of the Springer book series: <i>Methodology of Educational Measurement and Assessment</i> .
2019 –current	Editorial Board for <i>Educational Measurement: Issues and Practice</i> .
2019 –current	Editorial Board for <i>Measurement: Interdisciplinary Research and Perspectives</i> .
2019 –current	Editorial Board for <i>Educational Assessment</i> .
2019 –current	Editorial Board for <i>Methods in Psychology</i> .
10/2010 –10/2011	Editorial Board for the <i>American Educational Research Journal</i> - Teaching, Learning, and Human Development section.
6/2012 –6/2013	Editorial Board for <i>Psychology</i> .
2015, 2016	Article editor for Sage Open

Reviewer for Professional Journals

British Journal of Mathematical and Statistical Psychology
Journal of Educational Measurement Applied Psychological Measurement
Educational and Psychological Measurement
Psychometrika
Psychological Methods
Behavior Research Methods
Multivariate Behavioral Research
Journal of Educational and Behavioral Statistics
International Journal of Testing
Educational Assessment
International Journal of Quantitative Research in Education
Organizational Research Methods
Journal of American Educational Research
Frontiers in Quantitative Psychology and Measurement
Writing Systems Research
Alberta Journal of Educational Research

Reviewer for Book Chapters

Handbook of Diagnostic Classification Models edited by Matthias von Davier and Youngsun Lee
Improving Large-Scale Education Assessment: Theory, Issues, and Practice edited by Marielle Simon, Kadriye Ercikan, and Michel Rousseau, published by Routledge.
The Companion to Language Assessments edited by Antony J. Kunnan, published by John Wiley & Sons, Inc.

Reviewer for National and International Conferences

American Educational Research Association (AERA)
Division D, Special Interest Group for Rasch Measurement Model, Special Interest Group for Hierarchical Linear Modeling, Special Interest Group for Research on the Inclusions of Students with Disabilities and Limited English Proficient Students in Large-scale Assessments, Special Interest Group for Licensure and Certification Tests.
National Council on Measurement in Education (NCME)
Psychometric Society

International Objective Measurement Workshop
 Florida Educational Research Association (FERA)
 Southwest Educational Research Association

Tenure Reviewing Activities

May 2019 External reviewer for an Assistant Professor promoted to Associate Professor
 Nov. 2017 External reviewer for an Assistant Professor promoted to Associate Professor
 April 2016 External reviewer for an Assistant Professor promoted to Associate Professor

Grant and Fellowship Reviewing Activities

2019, 2018, 2017, 2016, 2014 Review panel for National Science Foundation: DRK-12 program
 2014, 2018 Grant Proposal Reviewer for National Science Foundation
 2013-2017 Reviewer for the Chinese Government Award for Outstanding Self-financed Students Abroad

Membership in Professional Organizations

National Council on Measurement in Education (NCME)
 American Educational Research Association (AERA)
 Psychometric Society

3. TEACHING, MENTORING, AND ADVISING

A. COURSES TAUGHT IN LAST FIVE YEARS

Graduate Courses

<u>Year(s)</u>	<u>Course Title</u>	<u>Approximate Typical Enrollment</u>
Spring 2020	Instrumentation	about 10
Fall 2019	Applied Measurement: Issues and Practices	about 20
Spring 2019	Instrumentation	about 10
Fall 2018	Classification and cognitive diagnosis	about 10
Spring 2018	Computerized adaptive testing	about 10
Fall 2017	Psychometrics in large-scale assessment	about 10
Spring 2017	Instrumentation	about 10
Fall 2016	Classification and cognitive diagnosis	about 10
Spring 2016	Quantitative methods I	about 30
Fall 2015	Psychometrics in large-scale assessment	about 10
Spring 2015	Modern measurement theory	about 10
Fall 2014	On sabbatical	

B. COURSES OR CURRICULUM DEVELOPMENT

<u>Year(s)</u>	<u>Course Title</u>	<u>Approximate Typical Enrollment</u>
Spring 2018	Computerized adaptive testing	about 10
Spring 2017	Instrumentation	about 10
Fall 2016	Classification and cognitive diagnosis	about 10
Fall 2013	Applied Measurement: Issues and Practices	about 10
Spring 2013	Modern measurement theory	about 10
2011	Finite Mixture Models in Statistics and Measurement (3 lectures)	about 10
Fall 2009	Psychometrics in large-scale assessment	about 12
Spring 2008	Quantitative methods II (ANOVA)	about 30
Fall 2007	Quantitative methods I (Descriptive and inferential statistics)	about 30

C. MANUALS, NOTES, SOFTWARE, WEBPAGES, & OTHER CONTRIBUTIONS TO TEACHING

2007-2019	Course Websites under the Enterprise Learning Management System (ELMS) at the University of Maryland: www.elms.umd.edu
2007-2019	*Notes for each class

*I have created a substantial set of course materials for all of the courses I taught which typically include *Power Point* lecture slides with data-analysis steps and outputs from software packages, computer lab worksheets with sample data sets and guided tasks, homework assignments, projects with real data from large-scale assessments, simulation work, in-class examinations, in-class practice questions, handouts for computer software program training, research projects, and critiques.

A. ADVISING (RESEARCH DIRECTIONS)

Master

1. Manqian Liao (**advisor**), EDMS, University of Maryland, to graduate in fall 2017.
2. Heather Trotter (**advisor**), EDMS, University of Maryland, graduated in spring 2015.
3. Dandan Liao (**advisor**), EDMS, University of Maryland, graduated in fall 2015.
4. Tongyun Li (**co-advisor**), EDMS, University of Maryland, graduated in fall 2012.
5. Huili Liu (**advisor**), EDMS, University of Maryland, graduated in spring 2012.
6. Anton Syromyatin (**advisor**), EDMS, University of Maryland, graduated in fall 2011.

Doctoral Advisor

1. Xin Qiao (**advisor**), EDMS, University of Maryland, expected to graduate in spring 2021.
2. Yishan Ding (**advisor**), EDMS, University of Maryland, expected to graduate in spring 2024.

Doctoral Advisor and Dissertation Chair

1. Chengbin Yin (**chair**), EDMS, University of Maryland, expected to graduate in spring 2020.
2. Manqian Liao (**chair**), EDMS, University of Maryland, expected to graduate in spring 2020.
3. Evan Olson (**chair**), EDMS, University of Maryland, expected to graduate in fall 2019.

4. Rosalyn Bryant (**chair**), EDMS, University of Maryland, graduated in spring 2018. Working at District of Columbia Public Schools.
5. Chen Li (**chair**), EDMS, University of Maryland, graduated in spring 2018. Working at Kaplan.
6. Dandan Liao (**chair**), EDMS, University of Maryland, graduated in spring 2018. Working at American Institute for Research.
7. Yuan Zhang (**chair**), EDMS, University of Maryland, graduated in fall 2015. Working at Highmark Health.
8. Tongyun Li (**chair**), EDMS, University of Maryland, graduated in spring 2015. Working at Educational Testing Service.
9. Chao Xie (**chair**), EDMS, University of Maryland, graduated in spring 2014. Working at American Institute for Research.
10. Yong Luo (**chair**), EDMS, University of Maryland, graduated in fall 2013. Will start working at Educational Testing Service.
11. Ying-Fang Chen (**chair**), EDMS, University of Maryland, graduated in fall 2013. Working at University of California, Berkeley.
12. Ru Lu (**chair**), EDMS, University of Maryland, graduated in fall 2010. Working at Educational Testing Service.

Doctoral Committee

1. Jordan Prendez (**Committee member**), Dr. Jeffrey Haring (chair), EDMS, University of Maryland, expected to graduate in fall 2020.
2. Yating Zheng (**Committee member**), Dr. Laura Stapleton (chair), EDMS, University of Maryland, expected to graduate in fall 2019.
3. Ji An (**committee member**), Dr. Laura Stapleton (chair), EDMS, University of Maryland, expected to graduate in Fall 2019.
4. Kyoko Hillman (**committee member**), Dr. M. Long (chair), Second Language Acquisition Program, University of Maryland, expected to graduate in fall 2019.
5. Anna Van Wie (**committee member**), Dr. Laura Stapleton (chair), EDMS, University of Maryland, expected to graduate in fall 2019.
6. Yuyun Peng (**Dean's representative**), Dr. Jing Lin (chair), Counseling, Higher Education, Special Education, University of Maryland, graduated in fall 2018.
7. Dongming Zhang (**committee member**), Dr. Ping Wang (chair), Ischool, University of Maryland, graduated in fall 2018.
8. Shauna Sweet (**committee member**), Dr. Gregory Hancock (chair), EDMS, University of Maryland, graduated in fall 2018.
9. Kari Hansen (**committee member**), Dr. Laura Stapleton (chair), EDMS, University of Maryland, *defended* in summer 2017.
10. Reem Albassam (**committee member**), Dr. David Lei (chair), EDMS, University of Maryland, *defended* in spring 2016.
11. Chin-Fang Weng (**committee member**), Dr. Robert Mislavy (chair), EDMS, University of Maryland, *defended* in fall 2013.
12. Xiaoshu Zhu (**committee member**), Dr. Robert Lissitz (chair), EDMS, University of Maryland, current doctoral candidate, *defended* in spring 2013.
13. Eunyung Chong (**committee member**), Dr. John E. Newhagen (chair), College of Journalism, University of Maryland, *defended* in spring 2012.
14. Ebony Terrell Shockley (**committee member**), Dr. Victoria-Maria MacDonald (chair), CAPS Department, University of Maryland, *defended* in spring 2012.

15. Daisy Rustein (**committee member**), Dr. Robert Mislevy (chair), EDMS, University of Maryland, *graduated* in winter 2011.
16. Younyoung Choi (**committee member**), Dr. Robert Mislevy (chair), EDMS, University of Maryland, *graduated* in fall 2011.
17. Jui-Chen Hsu (**committee member**), Dr. Jeff Haring & Gregory Hancock (chair), EDMS, University of Maryland, *graduated* in fall 2011.
18. Nidhi Kohli (**committee member**), Dr. Jeff Haring & Gregory Hancock (chair), EDMS, University of Maryland, *graduated* in summer 2011.
19. Min Liu (**committee member**), Dr. Gregory Hancock (chair), EDMS, University of Maryland, *graduated* in summer 2011.
20. Jessica Mislevy (**committee member**), Dr. Andre Rupp & Jeff Haring (chair), EDMS, University of Maryland, *graduated* in spring 2011.
21. Xiaodong Hou (**committee member**), Dr. Gregory Hancock (chair), EDMS, University of Maryland, *graduated* in summer 2011.
22. Ying Li (**committee member**), Dr. Robert Lissitz (chair), EDMS, University of Maryland, *graduated* in spring 2011.
23. Joyce Wang (**committee member**), Dr. Gregory Hancock (chair), EDMS, University of Maryland, *graduated* in spring 2010.
24. Marc Kroopnick (**committee member**), Dr. Robert Mislevy (chair), EDMS, University of Maryland, *graduated* in spring 2010.
25. Yunyun Dai (**committee member**), Dr. Robert Mislevy (chair), EDMS, University of Maryland, *graduated* in winter 2009.
26. Jennifer Hamilton (**committee member**), Dr. Gregory Hancock (chair), EDMS, University of Maryland, *graduated* in summer 2009.
27. Fei-Fei Li (**committee member**), Dr. Robert Mislevy (chair), EDMS, University of Maryland, *graduated* in spring 2009.
28. Donyang Li (**committee member**), Dr. Robert Mislevy (chair), EDMS, University of Maryland, *graduated* in spring 2009.
29. Yi Cao (**committee member**), Dr. Robert Lissitz (chair), EDMS, University of Maryland, *graduated* in spring 2008.

Mentorship

1. Mentor to Assistant Professor Yang Liu, University of Maryland College Park, 2018-current

Mentoring Visiting Scholars

1. Fangwen Wu, East China Normal University, China, 11/2019-5/2021
2. Xie-Feng Lu, Hunan Normal University, China, 8/2018-7/2019
3. Zhangjing Zhao, The National Institute of Education Sciences, China, 5/2016-11/20217
4. Peida Zhan, Beijing Normal University, China, 9/2016-9/20217
5. Chunmei Fan, Beijing Post and Communications University, China, 8/2015- 8/2016
6. Chunxia Huang, Beijing Language and Culture University, China, 10/2009-10/2010

Professional and Extension Education

Workshops

1. **Jiao, H.**, Luo, Y., Man*, K., & Liao*, D. (2017, April). *Bayesian estimation of item response theory model parameters using OpenBUGS and Stan*. Pre-conference training session at the Annual Meeting of the National Council on Measurement in Education. San Antonio, Texas.

4. SERVICE

A. PROFESSIONAL

Work with National and International Committees

2015 – present	Chair , the Technical Advisory Committee, Maryland State Department of Education.
2020 – present	Committee member , the Research Advisory Committee, Prince George Public School, Maryland.
2017 – present	Committee member , Oversight/Professional Advisory Committee for the College of Business, University of North America.
2020 – 2022	Chair , the NCME Brenda H. Loyd Dissertation Award Committee
2019 – 2020	Chair, Organizing Committee for 2020 International Meeting of Psychometric Society.
2018 – 2020	Chair Elected , American Educational Research Association, Rasch Special Interest Group.
2018 – 2019	Chair , American Educational Research Association, Division D2 program.
2015 – 2018	Committee member , the Research and Psychometric Committee, PARCC consortium test.
2017 – 2018	Co-Chair , American Educational Research Association, Division D2 program.
2017 – 2019	Committee member , National Council on Measurement in Education Outreach and Partnership Committee.
2017 – 2018	Committee member , the Program Committee, the International Objective Measurement Workshop.
2015 – 2016	Committee member , the Program Committee, the International Objective Measurement Workshop.
2013 – 2016	Committee member , the NCME annual awards committee.
2012 – 2014	Committee member , the Program Committee, the International Meeting of Psychometric Society.
2012 – 2013	Committee member , the Early Career Award committee, AERA-Division D.
2011 – 2012	Committee member , the Significant Contribution for Educational Measurement and Research Methodology committee, AERA-Division D.
2010 – 2011	Chair , the Significant Contribution for Educational Measurement and Research Methodology committee, AERA-Division D.
2009 – 2010	Co-chair , the Significant Contribution for Educational Measurement and Research Methodology committee, AERA-Division D.
Oct. 2014	Session Chair for the annual meeting of the International Association of Computerized Adaptive Testing.
2008 – 2011	Session Chair for the annual meeting of the National Council on Measurement in Education.

B. CAMPUS SERVICE

Department Service

2019 – 2020	Chair , the Department Awards and Fellowship Committee to the HDQM department
2020 – 2021	Member , the Department Tenure Review Committee in the HDQM department
2019 – 2020	Chair , the Graduate Student Admission Committee to the EDMS program
2018 – 2019	Member , the Graduate Student Admission Committee to the EDMS program
2017 – 2018	Member , the Department Fellowship Committee to the HDQM department
2017 – 2018	Chair , the Examination Committee for the EDMS program Master Comprehensive Exam, Doctoral Preliminary Exam, and Doctoral Comprehensive Exam
2017 – 2018	Member , the Merit Review Committee for the HDQM Department
2017 – 2018	Co-Organizer , the Measurement and Statistics Monday Symposium
2016 – 2017	Member , the Examination Committee for the EDMS program Master Comprehensive Exam, Doctoral Preliminary Exam, and Doctoral Comprehensive Exam
2016 – 2017	Co-Organizer , the Measurement and Statistics Monday Symposium
2016 – 2017	Member , the Department Fellowship Committee to the HDQM department
2015 – 2016	Member , the Search Committee for Assistant Professor in the program of Measurement, Statistics and Evaluation
2014 – 2016	Member , the Graduate Student Admission Committee to the EDMS program
2013 – 2014	Chair , the Graduate Student Admission Committee to the EDMS program
2014 – 2015	Member , the Search Committee for Assistant/Associate Professor in the program of Measurement, Statistics and Evaluation
2013 – 2014	Member , the Search Committee for Assistant Professor in the program of Educational Psychology and Developmental Science
2012 – 2013	Chair , the Examination Committee for Master Comprehensive Exam, Doctoral Preliminary Exam, and Doctoral Comprehensive Exam
2012 – 2013	Organizer , the Measurement and Statistics Monday Symposium
2011 – 2012	Member , the Search Committee for Chair of Department of Human Development and Quantitative Methodology.
2010 – 2011	Member , the Search Committee for Assistant/Associate Professor in the Department of Measurement, Statistics and Evaluation
2010 – 2012	Member , the Examination Committee for Master Comprehensive Exam, Doctoral Preliminary Exam, and Doctoral Comprehensive Exam
2009 – 2010	Chair , the Graduate Student Admission Committee
2007 – 2009	Member , the Graduate Student Admission Committee

College Service

2019	Member, Awards Committee of College of Education
2018 – 2019	Member, Senate Steering Committee of College of Education
2017 – 2019	Senator of College of Education
2017 – 2018	Member, College Partnership committee
2018	Member, Awards Committee , College of Education
2008 – 2011	Member, the International Committee , College of Education

2009 **Member, Awards Committee, College of Education 2009 –**
2010 **Member, Steering Committee of the College Senate**
2008 – 2010 **Senator** of College of Education