YI ZHENG, Ph.D.

Associate Professor, Honors Faculty
Arizona State University

Mary Lou Fulton College for Teaching and Learning Innovation
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EDUCATION

Ph.D. in Educational Measurement   08/2014
> *Department of Educational Psychology, University of Illinois at Urbana-Champaign*
> **Advisor:** Hua-Hua Chang, Ph.D.
> **Dissertation Title:** *New Methods of Online Calibration in Computerized Adaptive Testing*

Master of Science in Statistics   12/2010
> *Department of Statistics, University of Illinois at Urbana-Champaign*

Bachelor of Science in Psychology   06/2009
> *School of Psychology, Beijing Normal University, China*

Minor in Psychology   12/2007
> *One-Semester Overseas Exchange Program*
> *Tiffin University, OH, USA*

ACADEMIC POSITIONS

Associate Professor   08/2020-present
> *Arizona State University*
> *Mary Lou Fulton Teachers College & School of Mathematical and Statistical Sciences*

Assistant Professor   08/2014-05/2020
> *Arizona State University*
> *Mary Lou Fulton Teachers College & School of Mathematical and Statistical Sciences*

Instructor of Record   08/2012-05/2013
> *University of Illinois at Urbana-Champaign*
> *College of Education, Department of Educational Psychology*

Teaching/Research Assistant   08/2009-12/2013
> *University of Illinois at Urbana-Champaign*
> *College of Education, Department of Educational Psychology*

Research Assistant   08/2013-05/2014
> *University of Illinois at Urbana-Champaign*
> *College of Education, Confucius Institute*

JOURNAL EDITORSHIP

Lead Co-Editor in Chief   01/2023-present
  Chinese/English Journal of Educational Measurement and Evaluation
Editorial Board Member   01/2026-present
  Journal of Educational Measurement
Associate Editor   02/2019-10/2023
  Applied Psychological Measurement
Managing Editor   10/2011-02/2014
  Applied Psychological Measurement

RESEARCH SPECIALTY AREAS

- Computerized adaptive testing and multistage testing
- Educational and psychological measurement theories (classical test theory and item response theory)
- Educational and psychological test development and validation
- Educational and psychological measurement data modeling

PUBLICATIONS

Notes:

- **Annotation for students and post-docs (at the time of publication):** <u>Undergraduate student</u>, graduate student (*), post-doc fellow or lab manager (**).

PEER-REVIEWED JOURNAL RESEARCH ARTICLES

1. Aini, R.*, Edwards, B.*, <u>Summersill, A.</u>, <u>Epting, C.</u>, **Zheng, Y.**, Brownell, S. E., & Barnes, M. E. (2025). Evidence for the efficacy of conflict reducing practices in evolution education in a randomized controlled study. *CBE-LSE, 24:ar27.* https://www.lifescied.org/doi/10.1187/cbe.24-05-0157

2. Amrein-Beardsley, A., Azizova, Z., Gibbs, N. P.*, Ikegwuonu, E., Kim, J., La Torre, D. M.*, Lavery, M. R., Pivovarova, M., & **Zheng, Y.** (2025). A validation review of the SAT and ACT for admissions decisions. *Education Policy Analysis Archives, 33.* https://doi.org/10.14507/epaa.33.8734 (Authors ordered alphabetically.)

3. **Zheng, Y.**, Huang, S., Nydick, S., & Zhang, S. (2025). MxML Phase 2: Survey of the measurement community. *Chinese/English Journal of Educational Measurement and Evaluation, 6*(1), Article 3. https://doi.org/10.59863/GVZE8492

4. Tang, X.*, **Zheng, Y.**, Wu, T., Hau, K.-T., & Chang, H.-H. (2025). Utilizing response time for item selection in on-the-fly multistage adaptive testing for PISA assessment. *Journal of Educational Measurement. 62*(3), 468–495. https://doi.org/10.1111/jedm.12403

5. Aini, R.*, Supriya, K. **, Dunlop, H.*, Edwards, B.*, Mass, S.**, <u>Roberts, J.</u>, <u>Summerhill, A.</u>, **Zheng, Y.**, Brownell, S. E., & Barnes, M. E. (2024). Student perceptions of conflict reducing practices in evolution

education are associated with increases in their evolution acceptance in a large naturalistic study. *PloS One.* https://doi.org/10.1371/journal.pone.0313490

6. Liu, K. *, **Zheng, Y.**, Wang, D. *, Cai, Y., Shi, Y. *, Xi, C., & Tu, D. (2024). A framework for detecting both main effect and interactive DIF in multidimensional forced-choice assessments. *Organizational Research Methods.* https://doi.org/10.1177/10944281241244760

7. **Zheng, Y.**, Van Vliet, F. *, & Jin, J. I. *(2024). Case Study of the Use of Learner-Centered Assessment in the Math School of a Large University in the United States. *Education Research and Evaluation, 29* (Nos.7–8), 476–494*.* https://doi.org/10.1080/13803611.2024.2367488

8. **Zheng, Y.**, Nydick, S., Huang, S., & Zhang, S. (2024). MxML (Exploring the relationship between measurement and machine learning): Current state of the field. *Educational Measurement: Issues and Practice, 43*(1), 19–38*.* https://doi.org/10.1111/emip.12593

9. Barnes, M. E., Aini, R., Collins, J., Dunk, R., Holt, E., Jensen, J., Klein, J., Misheva, T., Nadelson, L., Reiss, M., Romine, W., Shtulman, A., Townley, A., Wiles, J., **Zheng, Y.**, & Brownell, S. (2024). Evaluating the current state of evolution acceptance instruments: A research coordination network meeting report. *Evolution: Education and Outreach, 17*:1, 1–20. https://doi.org/10.1186/s12052-024-00194-0

10. Wang, Q.*, **Zheng, Y.**, Liu, K.*, Cai, Y., Peng, S., & Tu, D. (2023). Item selection methods in multidimensional computerized adaptive testing for forced-choice items using Thurstonian IRT model. *Behavior Research Methods.* https://doi.org/10.3758/s13428-022-02037-6

11. Krantsevich, C.*, Hahn, P. R., **Zheng, Y.**, & Katz, C. (2023). Bayesian decision theory for tree-based adaptive screening tests with an application to youth delinquency. *The Annals of Applied Statistics, 17*(2)*,* 1038–1063. https://doi.org/10.1214/22-AOAS1657

12. Mohammed, T., Nadile, E. M.*, Busch, C. A.*, Brownnell, S. E., Brister, D., Claiborne, C. T., Edwards, B. A., Wolf, J. G., Lunt, C., Tran, M., Vargas, C., Walker, K. M., Warkina, T. D., Witt, M. L., **Zheng, Y.**, & Cooper, K. M. (2021). Aspects of large-enrollment online college science courses that exacerbate and alleviate student anxiety. *CBE-Life Sciences Education, 20:ar69*, 1–23. https://doi.org/10.1187/cbe.21-05-0132

13. Gong, B.*, & **Zheng, Y.** (2021). More is not always better: A study of country-level factors associated with adolescents' environmental attitudes using a multilevel analysis of PISA 2006. *Education Policy Analysis Archives, 29*(125), 1–12. https://doi.org/10.14507/epaa.29.4846

14. Gin, L. E.*, Clark, C. E., Elliott, D. B., Roderick, T. B., Scott, R. A., Arellano, D., Hunter, J. A., Ramirez, D., Vargas, C., Velarde, K., Aeschliman, A., Berkheimer, J., Campos, R., Cole, S. T., Gerbasi, M., Hughes, S., Roberts, J. A., White, Q. M., Wittekind, E., **Zheng, Y.**, Cooper, K. M., & Brownell, S. E. (2021). An exploration across institution types of undergraduate life sciences student decisions to stay in or leave an academic-year research experience. *CBE-Life Sciences Education, 20:ar47*, 1–14. https://doi.org/10.1187/cbe.21-04-0108

15. Barnes, M. E., Supriya, K.**, **Zheng, Y.**, Roberts, J., Brownell, S. E. (2021). A New Measure of Students' Perceived Conflict between Evolution and Religion (PCoRE) is a Stronger Predictor of Evolution Acceptance than Understanding or Religiosity. *CBE-Life Sciences Education, 20*:ar21, 1–16*.* https://doi.org/10.1187/cbe.21-02-0024

16. Nadile, E. M.*, Williams, K. D., Wiesenthal, N. J., Stahlhut, K. N., Sinda, K. A., Sellas, C. F., Salcedo, F., Camacho, Y. I. R., Perez, S. G., King, M. L., Hutt, A. E., Heiden, A., Gooding, G., Gomez-Rosado, J. O., Ford, S. A., Ferreira, I., Chin, M. R., Bevan-Thomas, W. D., Barreiros, B. M., Alfonso, E., **Zheng, Y.,** Cooper, K. M. (2021). Gender differences in student comfort voluntarily asking and answering questions in large-enrollment college science courses. *Journal of Microbiology & Biology Education, 22*(2): e00100-21. https://doi.org/10.1128/jmbe.00100-21

17. Gin, L. E.*, Scott, R. A., Pfeiffer, L. D., **Zheng, Y.**, Cooper, K. M., Brownell, S. E. (2021). It's in the syllabus… or is it? How syllabi can serve as tools for creating inclusive classrooms at a large-enrollment research institution. *Advances in Physiology Education, 45*, 224–240. https://doi.org/10.1152/advan.00119.2020

18. Nadile, E. M.*, Alfonso, E., Barreiros, B. M., Bevan-Thomas, W. D., Brownell, S. E., Chin, M. R., Ferreira, I., Ford, S. A., Gin, L. E.*, Gomez-Rosado, J. O., Gooding, G., Heiden, A., Hutt, A. E., King, M. L., Perez, S. G., Rivera Camacho, Y. I., Salcedo, F., Sellas, C. F., Sinda, K. A., Stahlhut, K. N., Stephens, M. D., Wiesenthal, N. J., Williams, K. D., **Zheng, Y.,** Cooper, K. M. (2021). Call on me! Undergraduates' perceptions of voluntarily asking and answering questions in front of large-enrollment science classes. *PLoS ONE, 16*(1): e0243731. https://doi.org/10.1371/journal.pone.0243731

19. Mead, C., Supriya, K.**, **Zheng, Y.**, Anbar, A. D., Collins, J. P., LePore, P., & Brownell, S. E. (2020). Online biology degree program broadens access for women, first-generation to college, and low-income students, but grade disparities remain. *PLoS ONE 15*(12): e0243916. https://doi.org/10.1371/journal.pone.0243916

20. **Zheng, Y.**, Cheon, H.*, & Katz, C. (2020). Using machine learning methods to develop a short tree-based adaptive classification test: Case study with a high dimensional item pool and imbalanced data. *Applied Psychological Measurement, 44*(7-8), 499–514. https://doi.org/10.1177/0146621620931198

21. Barnes, M. E.**, Dunlop, H. M.*, Sinatra, G. M., Hendrix, T. M., **Zheng, Y.,** Brownell, S. E. (2020). "Accepting evolution means you can't believe in God": Atheistic perceptions of evolution among college biology students. *CBE-Life Sciences Education, 19*:ar21, 1–13. https://doi.org/10.1187/cbe.19-05-0106

22. Figueroa, C., **Zheng, Y.**, & Adams, J.* (2020). College students' belief about psychological services: a Guatemalan case study. *Journal of Multicultural Counseling and Development, 48*, 44–57. https://doi.org/10.1002/jmcd.12163

23. Kang, H.-A., **Zheng, Y.**, & Chang, H-H. (2019). Online calibration of a joint model of item responses and response times in computerized adaptive testing. *Journal of Educational and Behavioral Statistics, 45*(2), 175–208. https://doi.org/10.3102/1076998619879040

24. Cooper, K. M.**, Gin, L. E. *, Akeeh, B., Clark, C. E., Hunter, J. S., Roderick, T. B., Elliott, D. B., Gutierrez, L. A., Mello, R. M., Pfeiffer, L. D., Scott, R. A., Arellano, D., Ramirez, D., Valdez, E. M., Vargas, C., Velarde, K., **Zheng, Y.**, & Brownell, S. E. (2019). Factors that predict life sciences student persistence in undergraduate research experiences. *PLoS One, 14*(8): e0220186. https://doi.org/10.1371/journal.pone.0220186

25. Wang, B*., **Zheng, Y.**, Irimata, K. M., & Wilson, J. R. (2019). Bootstrap ICC estimators in analysis of small clustered binary data. *Computational Statistics, 34*, 1765–1778. https://doi.org/10.1007/s00180-019-00885-z

26. Wang, B.*, **Zheng, Y.**, Fang, D., Kamarianakis, Y., & Wilson, J. R. (2019). Split bootstrap hierarchical modeling of antibiotics abuse in China. *Statistics in Medicine, 38*, 2282–2291. https://doi.org/10.1002/sim.8118

27. Couch, B. A., Wright, C. D.**, Freeman, S., Knight, J. K., Semsar, K.**, Smith, M. K., Summers, M.**, **Zheng, Y.**, Crowe, A. J., & Brownell, S. E. (2019). GenBio-MAPS: A programmatic assessment to measure student understanding of Vision and Change core concepts across general biology programs. *CBE-Life Sciences Education, 18*(1). https://doi.org/10.1187/cbe.18-07-0117

28. Barnes, M. E.**, Dunlop, H. M.*, Holt, E. A., **Zheng, Y.**, Brownell, S. E. (2019). Different instruments used to measure evolution acceptance lead to different research findings. *Evolution: Education and Outreach, 12*(4). https://doi.org/10.1186/s12052-019-0096-z

29. Cooper, K. M.*, Hendrix, T., Stephens, M. D., Cala, J. M.*, Mahrer, K., Krieg, A., Agloro, A., Badini, G. V., Barnes, M. E.*, Eledge, B., Jones, R., Lemon, E. C., Massimo, N. C.*, Martin, A., Ruberto, T.*, Simonson, K., Webb, E. A.*, Weaver, J., **Zheng, Y.**, Brownell, S. E. (2018). To be funny or not to be funny: Gender differences in student perceptions of instructor humor in college science courses. *PLoS One, 13*(8):e0201258. https://doi.org/10.1371/journal.pone.0201258

30. Xia, Y.**, & **Zheng, Y.** (2018). Asymptotically normally distributed person fit indices for detecting spuriously high scores on difficult items. *Applied Psychological Measurement, 42*(5), 343–358. https://doi.org/10.1177/0146621617730391

31. **Zheng, Y.**, & Chang, H-H. (2017). A comparison of five methods for pretest item selection in online calibration. *International Journal of Quantitative Research in Education, 4*(1/2), 133–158. https://doi.org/10.1504/IJQRE.2017.086500

32. **Zheng, Y.**, Nozawa, Y., Zhu, R., & Gao, X. (2016). Automated top-down heuristic assembly of a classification multistage test. *International Journal of Quantitative Research in Education, 3*(4), 242–265. https://doi.org/10.1504/IJQRE.2016.082387

33. Chiu, C.-Y., Koehn, H.-F., **Zheng, Y.**, & Henson, R. (2016). Joint maximum likelihood estimation for cognitive diagnostic models. *Psychometrika, 81*(4), 1069–1092. https://doi.org/10.1007/s11336-016-9534-9

34. **Zheng, Y.** (2016). Online calibration of polytomously scored items under the generalized partial credit model. *Applied Psychological Measurement, 40*(6), 434–450. https://doi.org/10.1177/0146621616650406

35. Wang, S.*, **Zheng, Y.**, Zheng, C., & Li, P. (2016). An automated test assembly program for a large-scale Chinese proficiency test. *Applied Psychological Measurement, 40*(3), 233–237. https://doi.org/10.1177/0146621616628503

36. Guo, R., **Zheng, Y.**, & Chang, H-H. (2015). A stepwise test characteristic curve method to detect item parameter drift. *Journal of Educational Measurement, 52*(3), 280–300. https://doi.org/10.1111/jedm.12077

37. **Zheng, Y.**, & Chang, H-H. (2015). On-the-fly assembled multistage adaptive testing. *Applied Psychological Measurement, 39*(2), 104–118. https://doi.org/10.1177/0146621614544519

38. Wang, C., **Zheng, Y.***, & Chang, H-H. (2014). Does standard deviation matter? Using "standard deviation" to quantify security of multistage testing. *Psychometrika, 79*(1), 154–174. https://doi.org/10.1007/s11336-013-9356-y

39. **Zheng, Y.***, Chang, C-H., & Chang, H-H. (2013). Content-balancing strategy in bifactor computerized

adaptive patient-reported outcome measurement. *Quality of Life Research, 22*(3), 491–499. https://doi.org/10.1007/s11136-012-0179-6

EDITORIALS

1. Bulut, O., & **Zheng, Y.** (in progress). Editorial: Special issue on big data sources in educational measurement*. Chinese/English Journal of Educational Measurement and Evaluation*

2. Bulut, O., & **Zheng, Y.** (2025). Editorial: Special issue on artificial intelligence and machine learning in educational measurement (Part 3)*. Chinese/English Journal of Educational Measurement and Evaluation, 6*(2), Article 1. https://doi.org/10.59863/DJYM9770

3. Bulut, O., & **Zheng, Y.** (2025). Editorial: Special issue on artificial intelligence and machine learning in educational measurement (Part 2)*. Chinese/English Journal of Educational Measurement and Evaluation, 6*(1), Article 1. https://doi.org/10.59863/PFLW4433

4. Bulut, O., & **Zheng, Y.** (2024). Editorial: Special issue on artificial intelligence and machine learning in educational measurement (Part 1)*. Chinese/English Journal of Educational Measurement and Evaluation, 5*(3), Article 1. https://doi.org/10.59863/BDQT2557

PREPRINTS

1. **Zheng, Y.**, Nydick, S., Huang, S., & Zhang, S. (2023). MxML (Exploring the relationship between measurement and machine learning): Current state of the field. https://doi.org/10.35542/osf.io/n9reh

2. **Zheng, Y.**, van Vliet, F.*, & Jin, J. I.* (2023, January 7). Case study of the use of learner-centered assessment in the math school of a large university in the United States. https://doi.org/10.35542/osf.io/7gzrk

3. Fisher, K. W., Xia, Y., **Zheng, Y.**, & Park, H. (2023). Identifying social capital dimensions using National Longitudinal Transition Study-2 data. https://doi.org/10.35542/osf.io/mbz2f

MANUSCRIPTS UNDER REVIEW OR REVISION

1. Cheon, H., Katz, C. M., & **Zheng, Y.** (under revision). Identifying youth at-risk for delinquency, drugs, gangs, and guns in Honduras: Validation of the Instrumento de Medicion de Comportamientos (IMC). *Criminal Justice and Behavior.*

MANUSCRIPTS IN PROGRESS

1. **Zheng, Y.**, Huang, S., Nydick, S., & Zhang, S. *MxML Phase 3: What the MxML literature says about timely updates of measurement standards in the era of ML/AI.*

BOOK CHAPTERS

1. **Zheng, Y.** (2017). Online calibration in computerized adaptive testing. In D. Tu (Ed.), *Computerized adaptive testing* (Chapter 9, pp. 157–175)*.* Beijing, China: Beijing Normal University Press.

2. **Zheng, Y.***, & Chang, H-H. (2014). Multistage testing, on-the-fly multistage testing, and beyond. In Y.

Cheng, & H-H. Chang (Eds.), *Advancing methodologies to support both summative and formative assessments* (Chapter 2, pp. 21–39)*. Charlotte, NC: Information Age Publishing.

3. **Zheng, Y.***, Wang, C., Culbertson, M. J.*, & Chang, H-H. (2014). Overview of test assembly methods in multistage testing. In D. Yan, A. A. von Davier, & C. Lewis (Eds.), *Computerized multistage testing: Theory and applications* (Chapter 6, pp. 87–99)*. New York, NY: CRC Press.

CONFERENCE PROCEEDINGS

1. Chiu, C.-Y., Koehn, H.-F., **Zheng, Y.**, & Henson, R. (2015). Exploring joint maximum likelihood estimation for cognitive diagnosis models. In L. A. van der Ark, D. M. Bolt, W.-C. Wang, J. A. Douglas, & S.-M. Chow (Eds.), *Quantitative psychology research, The 79th annual meeting of the psychometric society.* (Chapter 19, pp. 263 – 278). Switzerland: Springer International Publishing.

COMPUTER PROGRAMS

1. **Zheng, Y.**, & Chiu, C.-Y. (2019). **NPCD**: Nonparametric Methods for Cognitive Diagnosis. *R package version 1.0-11*. http://CRAN.R-project.org/package=NPCD

TECHNICAL REPORTS

1. Katz, C. M., **Zheng, Y.**, Cheon, H., Wallace, D., & Freemon, K.* (2023). *Predicting out-of-policy police behavior for early intervention systems through machine learning.* A report to the Phoenix Police Department.

2. Katz, C. M., Cheon, H.*, & **Zheng, Y.** (2019). *User's manual for the Honduran behavior measurement instrument.* USAID Research Project Technical Report.

3. Katz, C. M., Cheon, H.*, & **Zheng, Y.** (2018). *The revised Honduran YSET: Scales, items and cut points.* USAID Research Project Technical Report.

4. **Zheng, Y.***, Chuah, D., & Proctor, T. (2013). *The preliminary pretest method for efficiently building item bank.* Newtown, PA: The College Board.

5. **Zheng, Y.***, Nozawa, Y., Gao, X., & Chang, H-H. (2012). Multistage adaptive testing for a large-scale classification test: The designs, automated heuristic assembly, and comparison with other testing modes. *ACT Research Reports 2012-6.* Retrievable from http://media.act.org/documents/ACT_RR2012-6.pdf

6. Ryan, K. E., Chang, H-H., Ahn, J. *, Choe, E.*, Kang, H.-A.*, Timmer, J. D.*, Wakita, S., Yeh, R.*, Zheng, C.*, & **Zheng, Y.*** (2012). *Final recommendations on Illinois State Assessments (Research Report No. 14).* Springfield, IL: Illinois State Board of Education.

7. Chang, H-H., Ryan, K. E., **Zheng, Y.***, Chen, Y.-L.*, Lin, H.*, Neo, T. Y. L.*, & Zheng, C.* (2011). *Vertical scaling of ISAT (I): Motivation, literature review, and design of simulation study (Research Report No. 12).* Springfield, IL: Illinois State Board of Education.

8. Chang, H-H., Ryan, K. E., **Zheng, Y.***, Ali, U.*, Wang, C.*, & Lin, H.* (2011). *Scale stability: An empirical study of ISAT linking (Research Report No. 10)*. Springfield, IL: Illinois State Board of Education.

9. Ryan, K. E., Gandha, T.*, Wakita, S., Gannon, N.*, Muhati, M. P.*, & **Zheng, Y.*** (2010). *Illinois assessment consequences evaluation: Year two report (Research Report No. 9)*. Springfield, IL: Illinois State

Board of Education.

PRESENTATIONS

Notes:

- **Annotation for students and post-docs (at the time of publication):** <u>Undergraduate student</u>, graduate student (*), post-doc fellow (**).

INVITED TALKS - INTERNATIONAL

1. **Zheng, Y.** (2023, June). The MxML project (Exploring the paradigmatic relationship between educational and psychological measurement and machine learning in the past, present, and future): State of the field based on the recent 10 years of literature. Invited talk at the Anhui Normal University, Wuhu, China.
2. **Zheng, Y.** (2023, June). The MxML project (Exploring the paradigmatic relationship between educational and psychological measurement and machine learning in the past, present, and future): State of the field based on the recent 10 years of literature. Invited talk at the Nanjing Normal University, Nanjing, China.
3. **Zheng, Y.** (2023, June). The MxML project (Exploring the paradigmatic relationship between educational and psychological measurement and machine learning in the past, present, and future): State of the field based on the recent 10 years of literature. Invited talk at the East China Normal University, Shanghai, China.
4. **Zheng, Y.** (2023, May). The MxML project (Exploring the paradigmatic relationship between educational and psychological measurement and machine learning in the past, present, and future): State of the field based on the recent 10 years of literature. Invited talk at the Technology and Applications of Large-scale Assessment in Education Symposium at the Launch Meeting of the "Education Assessment Alliance of Guangdong, Hong Kong, and Macao", Zhuhai, China.
5. **Zheng, Y.** (2023, May). The MxML project (Exploring the paradigmatic relationship between educational and psychological measurement and machine learning in the past, present, and future): State of the field based on the recent 10 years of literature. Invited talk at the School of Statistics, Beijing Normal University - Zhuhai, Zhuhai, China.
6. **Zheng, Y.** (2023, May). The MxML project (Exploring the paradigmatic relationship between educational and psychological measurement and machine learning in the past, present, and future): State of the field based on the recent 10 years of literature. Invited talk at the Collaborative Innovation Center of Assessment towards Basic Education Quality, Beijing Normal University, Beijing, China.
7. **Zheng, Y.** (2021, October). *Examining learner-centered assessment practices in higher education: A case study using review of course syllabi* (Invited symposium: Empirical research on measurement and evaluation in higher education). The 7th Forum on Empirical Education Research, Shanghai, China.
8. **Zheng, Y.** (2019, December). *Advanced techniques for item bank development, automated test assembly, and adaptive test designs.* Invited talk at the Collaborative Innovation Center of Assessment towards Basic Education Quality, Beijing Normal University, Beijing, China.
9. **Zheng, Y.** (2016, July). *Recent developments in psychometrics*. Invited talk at the Collaborative Innovation Center of Assessment towards Basic Education Quality, Beijing Normal University, Beijing, China.

10. **Zheng, Y.** (2016, June). *Recent developments in psychometrics.* Invited talk at the School of Psychology, Nanjing Normal University, Nanjing, China.

11. **Zheng, Y.** (2016, June). *Recent developments in psychometrics.* Invited talk at the School of Psychology, Jiangxi Normal University, Nanchang, China.

12. **Zheng, Y.** (2015, July). *Recent developments in psychometrics.* Invited talk at the Collaborative Innovation Center of Assessment towards Basic Education Quality, Beijing Normal University, Beijing, China.

13. **Zheng, Y.,** Wang, C., Culbertson, M. J.*, & Chang, H-H. (2015, July). *Overview of test assembly methods in multistage testing.* Invited symposium paper presented at the 80th Annual Meeting of the Psychometric Society, Beijing, China.

14. **Zheng, Y.*** (2011, December). *Multistage adaptive testing.* Faculty of Education, Beijing Normal University, Beijing, China.

INVITED/ORGANIZED CONFERENCE SESSIONS

1. NCME journal editors. (expected 2026, April). *Navigating NCME journals: Pathways to publication.* Organized panel session at the Annual Meeting of the National Council on Measurement in Education, Los Angeles, CA.

2. Boykin, A. A., Manley A. C., Rios, J., & **Zheng, Y.** [†] (2022, April). *Recruiting and retaining new educational measurement faculty*. Organized session at the Annual Meeting of the National Council on Measurement in Education, San Diego, CA. ([†] All authors ordered alphabetically.)

INVITED TALKS - REGIONAL

1. **Zheng, Y.** (2022, February). *Scoring Likert Scales Using Item Response Theory (IRT)*. Invited talk at the B2C2 (Biological and Behavioral, Computational and Critical) Data Initiative, New College of Interdisciplinary Arts and Sciences, Arizona State University.

2. **Zheng, Y.** (2021, November). *MxML (When measurement meets machine learning): Exploring paradigmatic relationship between M and ML in the history, current time, and future.* Invited talk at the quantitative psychology seminar series, Department of Psychology, Arizona State University.

3. **Zheng, Y.** (2020, April). *Applying data science to educational and psychological measurement.* Invited talk at the annual conference of Women in Data Science, Data Science Institute, University of Arizona.

4. **Zheng, Y.** (2018, October). *Using Concerto for real test-taker experimental research on Computerized Adaptive Testing*. Invited talk at the quantitative psychology seminar series, Department of Psychology, Arizona State University.

5. Fisher, K., Park, H., & **Zheng, Y.** (2016, April). *Exploring adolescent access to social capital.* Invited talk at the Mary Lou Fulton Teachers College Faculty Spotlight series, Arizona State University.

REFEREED CONFERENCE PRESENTATIONS - INTERNATIONAL

1. Tang, X.*, **Zheng, Y.**, Wu, T., Hau, K.-T., & Chang, H.-H. (2022, September). *On-the-fly multistage testing design for PISA assessment incorporating response time.* Paper to be presented at the International Association for Computerized Adaptive Testing Conference, Frankfurt am Main, Germany.

2. **Zheng, Y.** (2015, July). *Exploring online calibration of polytomous items in computerized adaptive testing.* Paper presented at the 80th Annual Meeting of the Psychometric Society, Beijing, China.

3. Kang, H.-A.*, **Zheng, Y.**, & Chang, H-H. (2015, July). *Online calibration for a joint model of responses and response times in CAT.* Paper presented at the Annual Meeting of the Psychometric Society, Beijing, China.

4. **Zheng, Y.***, Nozawa, Y., Gao, X., & Chang, H-H. (2012, April). *Multistage adaptive testing for a large-scale classification test: The designs, automated heuristic assembly, and comparison with other testing modes.* Paper presented at the Annual Meeting of the National Council on Measurement in Education, Vancouver, British Columbia, Canada.

REFEREED CONFERENCE PRESENTATIONS - NATIONAL

3. **Zheng, Y.**, Huang, S., Nydick, S., & Zhang, S. (Expected 2026, April). *MxML Phase 4: Using AI agent to review the latest ML/AI literature in measurement*. Poster to be presented at the Annual Meeting of the National Council on Measurement in Education, Los Angeles, CA.

4. **Zheng, Y.**, Nydick, S., & Huang, S. (2025, April). *MxML Phase 3: Proposing changes to measurement standards for machine learning enhanced measurement.* Paper presented at the Annual Meeting of the National Council on Measurement in Education, Denver, CO.

5. **Zheng, Y.**, Huang, S., Nydick, S., & Zhang, S. (2024, April). *MxML Phase 2: Survey of the measurement community.* Paper presented at the Annual Meeting of the National Council on Measurement in Education, Philadelphia, PA.

6. **Zheng, Y.**, Nydick, S., Huang, S., & Zhang, S. (2023, April). *MxML: Exploring the relationship between measurement and machine learning in recent history*. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Chicago, IL.

7. Tang, X. *, **Zheng, Y.**, & Chang, H-H. (2023, April). *Incorporating Response Time into On-the-fly Multistage Adaptive Testing for PISA*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.

8. **Zheng, Y.** (2022, April). *Examining the validity evidence for SAT/ACT in admissions: Reliability/precision and internal structure* (In organized symposium: Do SATs/ACTs Inform Equitable Admissions and Scholarship Decisions for the 21st Century? A Validation Review). Paper to be presented at the Annual Meeting of the American Educational Research Association, San Diego, CA.

9. Tang, X. *, Wu, T. *, **Zheng, Y.**, Hau, K. T., & Chang, H-H. (2022, April). *Comparison of on-the-fly MST with preassembled MST on PISA data*. Paper to be presented at the Annual Meeting of the American Educational Research Association, San Diego, CA.

10. **Zheng, Y.**, Jin, J. I.*, & van Vliet, F.* (February 2022). *A case study of learner-centered assessment in a mathematics school.* Paper to be presented at the 2022 AAC&U Conference on General Education, Pedagogy, and Assessment, San Diego, CA.

11. Close, K.*, & **Zheng, Y.** (2021, June) *Predicting problematic items using a linguistic complexity framework: Findings from cognitive interviews.* Paper presented at the Annual Meeting of the National Council on Measurement in Education, Baltimore, MD.

12. **Zheng, Y.**, Cheon, H.*, & Katz, C. (2019, April). *Building a short tree-based adaptive screening test for juvenile delinquency risk.* Paper presented at the Annual Meeting of the National Council on Measurement in Education, Toronto, Canada.

13. Singarajah, E.*, Reifsnider, E., Shin, C., **Zheng, Y.**, Komnenich, P. (2020, April). *Ethnic differences in health and cardiovascular risk factors of Asians in Arizona.* Poster presentation presented at the Western Institute of Nursing's Annual Communicating Nursing Research Conference, Portland, OR.

14. Fisher, K. W., Xia, Y., **Zheng, Y.**, & Park, H. (2020, April). *Identifying items and latent constructs for social network support and structure using National Longitudinal Transition Study-2 data* [Roundtable Session]. The Annual Meeting of American Educational Research Association, San Francisco, CA. http://tinyurl.com/qu4gxy9 (Conference Canceled)

15. **Zheng, Y.** (2018, April). *Using Concerto for experimental research on CAT: Lessons learned.* Paper presented at the Annual Meeting of the National Council on Measurement in Education, New York, NY.

16. Xia, Y.**, & **Zheng, Y.** (2018, April). *Analysis of incomplete ordinal data in structural equation modeling using the Bayes Estimator.* Paper presented at the Annual Meeting of the National Council on Measurement in Education, New York, NY.

17. Fisher, K. W., **Zheng, Y.**, & Park, H. (2017, April). *Access to social capital in and out of high school: Why building student social connections is critical.* Paper presented at the Annual Meeting of American Educational Research Association, San Antonio, TX.

18. **Zheng, Y.** (2016, April). *Online calibration of polytomous items in computerized adaptive testing.* Paper presented at the Annual Meeting of the National Council on Measurement in Education, Washington, D.C.

19. Kang, H.-A.*, **Zheng, Y.**, & Chang, H-H. (2015, April). *Online calibration for a joint model of responses and response times in CAT.* Paper presented at the Annual Meeting of the National Council on Measurement in Education, Chicago, IL.

20. **Zheng, Y.***, & Chang, H-H. (2014, April). *The ordered informative range priority index (OIRPI) method for item selection in online calibration.* Paper presented at the Annual Meeting of the National Council on Measurement in Education, Philadelphia, PA.

21. Guo, R.*, **Zheng, Y.***, & Chang, H-H. (2014, April). *A stepwise test characteristic curve method to detect item parameter drift.* Paper presented at the Annual Meeting of the National Council on Measurement in Education, Philadelphia, PA.

22. Guo, R.*, **Zheng, Y.***, & Chang, H-H. (2013, April). *A stepwise test characteristic curve method to detect item parameter drift*. Roundtable presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.

23. **Zheng, Y.***, Wang, C.*, & Chang, H-H. (2012, July). *Making multistage testing more secure: An analysis under the item theft scenario.* Paper presented at the 77th Annual Meeting of the Psychometric Society, Lincoln, NE.

24. Wang, C.*, **Zheng, Y.***, & Chang, H-H. (2012, July). *A new index to measure test security for online testing.* Paper presented at the 77th Annual Meeting of the Psychometric Society, Lincoln, NE.

25. **Zheng, Y.***, & Chang, H-H. (2011, October). *Automatic on-the-fly assembly for computerized adaptive multistage testing*. Paper presented at the International Association for Computerized Adaptive Testing

Conference, Pacific Grove, CA.

26. **Zheng, Y.***, & Chang, H-H. (2011, April). *Automatic on-the-fly assembly for computer adaptive multistage testing.* Paper presented at the Annual Meeting of the National Council on Measurement in Education, New Orleans, LA.

27. **Zheng, Y.***, Chang, C-H., & Chang, H-H. (2010, July). *Content-balancing strategies in computerized adaptive Patient Reported Outcome assessment.* Paper presented at the 75th Annual Meeting of the Psychometric Society, Athens, GA.

CONFERENCE PRESENTATIONS - LOCAL

1. Close, K.*, & **Zheng, Y.** (2019, December) *Linguistic issues with standardized test items: Findings from cognitive interviews with native Spanish and mandarin Chinese speakers.* Paper presented at the Arizona Education Research Organization Annual Conference, Tempe, AZ.

2. **Zheng, Y.** (2018, February). *Using Concerto for experimental research on CAT: Lessons learned.* Poster presented at the ASU Learning Innovation Showcase, Arizona State University, AZ.

3. **Zheng, Y.** (2017, April). *Advancing computerized adaptive testing through participant-based research and open-source platform tools.* Poster presented at the ASU Mary Lou Fulton Teachers College Internal Research Grants Symposium, Arizona State University, AZ.

4. **Zheng, Y.***, & Chang, H-H. (2013, April). *On-the-fly Assembled Multistage Adaptive Testing (OMST).* Paper presented at the 4th Annual College of Education Graduate Student Conference, University of Illinois at Urbana-Champaign, Champaign, IL.

5. Gandha, T.*, **Zheng, Y.***, Ryan, K. E., & Chang, H-H. (2012, March). *Collaborative research and evaluation to improve the uses and impact of test-based accountability.* Paper presented at the 3rd Annual College of Education Graduate Student Conference, University of Illinois at Urbana-Champaign, Champaign, IL.

GRANTS

Phoenix Police Department's Early Intervention System SMART Policing   10/2025-12/2026
  Bureau of Justice Assistance, U.S. Department of Justice
  Amount: $165,000
  Role: co-PI (24% REC/RID/IIA)
  PI: Charles Katz (School of Criminology and Criminal Justice)

Developing an extension of the TELL curriculum for three-year-old children with developmental speech and/or language impairment   07/2018-06/2022
  Institute of Education Sciences (IES), U.S. Department of Education
  Amount: $1,400,000
  Role: co-PI (20% REC/RID/IIA)
  PI: Shelley Gray (College of Health Solutions, ASU)

Applying translanguaging theory to testing: Designing a new technology-enhanced accommodation for English language learners   05/2019-12/2020

Mary Lou Fulton Teachers College, Arizona State University

Amount: $14,970

Role: PI (50%)

Secondary violence prevention activity (SVPA) adaption and evaluation 01/2017-06/2020

Creative Associates International, USAID

Amount: $655,637

Role: co-PI (10% REC/RID/IIA)

PI: Charles Katz (School of Criminology & Criminal Justice, ASU)

Advancing personalized learning across physical and digital spaces: A data-driven learning analytics approach 05/2019-12/2019

Institution for Social Science Research, Arizona State University; Seed Grant Program

Amount: $7,998

Role: co-PI (50%) (PI: Ihan Hsiao, Arizona State University)

Advancing computerized adaptive testing through participant-based research and open-source platform tools 12/2016-11/2017

Mary Lou Fulton Teachers College, Arizona State University

Amount: $12,900

Role: PI (100%)

Psychometric advisory for Maricopa community colleges 03/2016-06/2016

Maricopa Community Colleges, Arizona

Amount: $1,194

Role: PI (100% REC/RID/IIA)

Exploring online calibration of polytomous items in computerized adaptive testing 05/2015-08/2015

Mary Lou Fulton Teachers College, Arizona State University

Amount: $8,000

Role: PI (100%)

COURSE TEACHING

Course Instructor 08/2014-present

Arizona State University

Analysis-of-Variance Methods (EDP 554)

    Semester: 2020 Spring

Applied Regression Analysis (STP 530)

    Semesters: 2019 Fall, 2020 Fall, 2022 Fall, 2023 Fall, 2024 Fall, 2025 Spring, 2025 Fall

Data Management and Sharing in Educational Research (EDU 598, 1 credit online module)

    Semester: 2023 Spring

Educational Sciences II (EDU 502)

    Semester: 2023 Spring

Experimental Statistics (STP 429)

    Semesters: 2014 Fall, 2015 Spring, 2015 Fall, 2016 Fall, 2017 Spring, 2018 Spring, 2019 Spring

  Introduction to Data Analysis (COE 502)

    Semesters: 2015 Spring, 2017 Spring

  Introduction to Group Designs in Educational Research (EDU 598, 1 credit online module)

    Semester: 2022 Fall

  Introduction to Measurement Theory and Practice in Education (DCI 691)

    Semesters: 2015 Fall, 2017 Fall, 2019 Fall, 2020 Fall

  Measurement and Survey Research (EPA 691)

    Semesters: 2025 Fall

  Multiple Regression and Correlation Methods (EDP 552)

    Semesters: 2016 Spring, 2018 Spring, 2023 Fall, 2025 Spring, 2026 Spring

  Test Development, Scoring, and Scaling (EDU 598, 1 credit online module)

    Semester: 2023 Spring

Lab Session Instructor   08/2013-12/2013

  University of Illinois at Urbana-Champaign

  Measurement and Test Development Lab (PSYC 490)

    Semester: 2013 Fall

Course Instructor of Record   08/2012-05/2013

  University of Illinois at Urbana-Champaign

  Elements of Statistics (EPSY 280)

    Semesters: 2012 Fall, 2013 Spring

Teaching Assistant   08/2009-12/2011

  University of Illinois at Urbana-Champaign

  Educational Statistics (EPSY 480)

    Semester: 2010 Spring

  Statistical Methods in Psychology (EPSY 580)

    Semesters: 2009 Fall, 2010 Fall, 2011 Fall

Intern Teacher   03/2009-04/2009

  Zhongguangcun No.4 Primary School, Beijing, China

  Experience: Class management; taught a course on social studies.

STUDENT MENTORING

Doctoral Advisor   12/2017-present

  Arizona State University

  Students:

  Kevin Close (LLT, 2021 Fall)

  Zhicui Zhang (Statistics, 2024 Summer)

Doctoral Dissertation Committee Member   08/2014-present

Arizona State University

Students:

Junfei Zhu (Statistics, 2017 Spring)

Bei Wang (Statistics, 2017 Fall)

Zhongshen Wang (Statistics, 2018 Spring)

Katelyn Cooper (Biology Education, 2018 Spring)

Oscar Gonzales (Psychology, 2018 Spring)

Hyunkyoung Yoon (Math Ed, 2019 Summer)

Hazar Khogeer (Statistics, 2019 Fall)

Erlinda Singarajah (Nursing, 2019 Fall)

Elsa Vazquez (Statistics, 2020 Spring)

Kyran Cupido (Statistics, 2020 Spring)

Byoung-Gyu Gong (EPE, 2021 Spring)

Logan Gin (Biology Education, 2021 Fall)

Jinhui Xu (Statistics, 2022 Fall)

Shuang Gu (Statistics, 2023 Summer)

Man Su (LLT, 2023 Fall)

Chelsea Krantsevich (Statistics, 2023 Fall)

Carly Busch (Biology Education, 2024 Spring)

Jeong Im Jin (EPE, 2024 Spring)

Xiuxiu Tang (Purdue University, 2024 Spring)

Adam Leighton (Statistics, 2025 Spring)

Ashley Foster (Biology, 2025 Summer)

Tasneem Mohammed (Biology Education, current)

Baylee Edwards (Biology Education, current)

Cody Delos Santos (Applied Math, current)

Lydia Gabric (Statistics, current)

Jennifer Rastegar (Statistics, current)

Keyan Wu (Statistics, current)

Doctoral Secondary Research Advisor   08/2015-present

Arizona State University

Students:

James Cunningham (LLT, 2015 Spring)

Joshua Adams (LLT, 2015 Fall, 2016 Spring, 2016 Fall, 2017 Spring)

Byoung-gyu Gong (EPE, 2017 Fall, 2018 Spring, 2019 Fall)

Jeong Im Jin (EPE, 2021 Spring)

Master Thesis/Applied Project Advisor   05/2015-present

Arizona State University

Students:

Liangfeng Yang (Statistics, 2016 Spring)

Mercy Osei (Education Sciences, 2024 Fall)

Master Thesis/Applied Project Committee Member 04/2015-present

Arizona State University

Students:

Hua Wang (Statistics, 2015 Spring)

Shichao Liu (Statistics, 2015 Spring)

Oscar Gonzales (Psychology, 2016 Spring)

Jie Pu (Statistics, 2016 Spring)

Renyuan Sun (Statistics, 2016 Spring)

Shengjie Zhou (Statistics, 2017 Spring)

Xin Lei (Statistics, 2017 Spring)

Fei Wang (Statistics, 2017 Spring)

Xitao Xie (Statistics, 2017 Fall)

Yi-Ping Lee (Statistics, 2019 Summer)

Jiaxuan Yang (Statistics, 2019 Fall)

Shu Yang (Statistics, 2019 Fall)

Chengyu Hong (Statistics, 2020 Spring)

Ziwei Chen (Statistics, 2020 Spring)

Haoran Shi (Statistics, 2020 Spring)

Catherine Hart (Statistics, 2020 Summer)

Huaiqiong Chen (Statistics, 2021 Fall)

Honors Thesis Chair 05/2015-present

Arizona State University

Students:

Justin Kasten (Statistics, 2016 Spring)

Henry Vasquez (Statistics, 2018 Spring)

Lili Derby-Lawson (Statistics, 2023 Spring)

Santiago DuqueBaird (Psychology, 2024 Spring)

Abhave Abhilash (Computer Science, current)

Kyra Kawamura (Psychology, current)

Honors Thesis Committee Member 10/2015-present

Arizona State University

Students:

Kirsten Voorhies (Statistics, 2017 Spring)

Honors Fellowship Supervisor 08/2022-present

Arizona State University

Students:

Rafael Ortiz III (Astrophysics, 2022 Fall)

Santiago DuqueBaird (Psychology, 2024 Spring)

Khalifah Muhammad (Mathematics, 2024 Spring)

Abhave Abhilash (Computer Science, current)

Kyra Kawamura (Psychology, current)

Honors Contract Advisor   08/2014-present

Arizona State University

Students:

Sharon Wu (Statistics, 2014 Fall)

Nghia Millard (Statistics, 2015 Spring)

Koranis Tanwisuth (Statistics, 2015 Fall)

Alyssa Niren (Statistics, 2017 Spring)

Joel Krukar (Statistics, 2017 Spring)

Henry Vasquez (Statistics, 2017 Spring)

PROFESSIONAL SERVICE

INTERNATIONAL/NATIONAL SERVICE

Lead Co-Editor-in-Chief   01/2023-present

Chinese/English Journal of Educational Measurement and Evaluation

Editorial Board Member   01/2026 -present

Journal of Educational Measurement

Associate Editor   02/2019-10/2023

Applied Psychological Measurement

Managing Editor   10/2011-02/2014

Applied Psychological Measurement

PISA Research, Development, and Innovation in MSAT Expert Group Member   06/2022-2/2023

Organisation for Economic Co-operation and Development (OECD)

NCME Educators of Measurement SIGIMIE Committee Member   06/2021-06/2022

National Council on Measurement in Education

ASA Arizona Chapter Board Member   02/2022-present

American Statistical Association

IEEE Working Group Committee Member   09/2020-06/2022

IEEE Adaptive Instructional Systems Working Group --
Recommended Practices for AIS Evaluation Subgroup

Manuscript Reviewer   03/2011-present

Applied Psychological Measurement

Assessment

Behavior Research Methods

British Journal of Mathematical Statistical Psychology

Digital Health

Educational and Psychological Measurement

Educational Measurement: Issues and Practice

Educational Technology Research and Development

Frontiers: Quantitative Psychology and Measurement

International Journal of Educational Research

International Journal of Testing

Journal of Educational Measurement

Journal of Engineering Education

Journal of Statistical Software

Psychological Methods

Psychometrika

PLOS ONE

Quality of Life Research

Proposal Reviewer

The Annual Meetings of National Council on Measurement in Education (2013)

The International Meeting of Psychometric Society (2013)

Mary Lou Fulton Teachers College Internal Research Grants (2017, 2020)

Member of Professional Associations

American Educational Research Association, Division D (Measurement & Research Methodology)

American Psychological Association, Division 5 (Evaluation, Measurement, and Statistics)

National Council on Measurement in Education

Psychometric Society

LOCAL AND COMMUNITY SERVICE

Organizing Committee co-Chair/Member

American Statistical Association DataFest Hackathon Competition   08/2019-06/2024

Psychometrics Consultant

Developing mathematics diagnostic assessments for college-ready placement   11/2015-10/2016

      Maricopa County Community Colleges

Judge (Statistics)   05/2016

Intel International Science and Engineering Fair (International high school students competition)

      Phoenix, AZ

INSTITUTIONAL SERVICE

School Graduate Committee Member   08/2024-present

Arizona State University, School of Mathematical and Statistical Sciences

School Ombuds Committee Member   08/2025-present

Arizona State University, School of Mathematical and Statistical Sciences

School Executive Committee Member   08/2023-07/2025

Arizona State University, School of Mathematical and Statistical Sciences

Award Committee Member   01/2022-07/2024

Arizona State University, School of Mathematical and Statistical Sciences

School Research Development Committee Member   10/2023-07/2024

Arizona State University, School of Mathematical and Statistical Sciences

Search Committee Member   10/2015-present

Arizona State University

2025-26 TTE in Data Science*, School of Mathematical and Statistical Sciences*

2024-25 TTE in Actuarial Science*, School of Mathematical and Statistical Sciences*

2023-24 Presidental Postdoc*, School of Mathematical and Statistical Sciences*

2019-20 TTE in Educational Statistics and Methods, *Mary Lou Fulton Teachers College*

2015-16 TTE in Early Childhood Mathematics Education, *Mary Lou Fulton Teachers College*

2015-16 TTE in Elementary Mathematics Education, *Mary Lou Fulton Teachers College*

Graduate Admission Committee   08/2018-present

Arizona State University

2026 Master's and Ph.D. in Statistics, Chair, *School of Mathematical and Statistical Sciences*

2025 Master's and Ph.D. in Statistics, Chair, *School of Mathematical and Statistical Sciences*

2024 Master's and Ph.D. in Statistics, Member, *School of Mathematical and Statistical Sciences*

2021 Ph.D. in Learning, Literacies, and Technologies, Member, *Mary Lou Fulton Teachers College*

2019 Ph.D. in Learning, Literacies, and Technologies, Member, *Mary Lou Fulton Teachers College*

Doctoral Methods Courses Redesign Committee Member   05/2023-07/2025

Arizona State University, Mary Lou Fulton Teachers College

Math Adaptive Curriculum Development Committee Member   08/2020-05/2022

Arizona State University, School of Mathematical and Statistical Sciences

Master Program Development Committee Member   03/2017-12/2020

Arizona State University

M.S. in Education Sciences, *Mary Lou Fulton Teachers College*

Promotion and Tenure Review Committee Member   03/2023-08/2023

Arizona State University

2023 Ad hoc, *School of Mathematical and Statistical Sciences*

Advisory Board Member   09/2016-05/2017

Arizona State University

Office of Scholarship Advisory Board, *Mary Lou Fulton Teachers College*

Quantitative Research Method Consultant   01/2010-05/2014

University of Illinois at Urbana-Champaign

Department of Educational Psychology

PREVIOUS RESEARCH POSITIONS

Research Intern 07/2013-08/2013

The College Board (*45 Columbus Avenue New York, NY 10023*)

Project: Enhancing IRT Item Parameter Estimation

Experience: Reviewed the literature on methods for enhancing IRT parameter estimation; based on the literature, proposed a design in an operational testing context to enhance IRT item parameter estimation in its pretesting; conducted a large-scale simulation study to evaluate the effectiveness of the proposed design.

Research Intern 06/2011-07/2011

ACT, Inc. (500 ACT Drive, Iowa City, IA 52243)

Project: Automatic Assembly of Multistage Tests Using a Heuristic Method

Experience: Constructed a multistage testing (MST) framework for a large-scale operational test; wrote a computer program for automatically assembling MST tests using a heuristic method, and conducted a simulation study to compare different designs of MST and compare MST with computerized adaptive testing and paper-and-pencil testing.

Research Assistant 08/2013-05/2014

Confucius Institute, University of Illinois at Urbana-Champaign

Project: Automated Assembly of the New Chinese Language Proficiency Test (HSK)

PI: Dr. Hua-Hua Chang

Funded by: Chinese Testing International Co., Ltd

Experience: Collaborating with one fellow research assistant, designed and developed an automated test assembly system for the new HSK, the official and most authoritative international standardized Chinese language exam for non-native Chinese speakers.

Research Assistant 05/2010-05/2012

University of Illinois at Urbana-Champaign

Project: External Review of the Illinois Large Scale Assessment and Accountability System

Co-PI: Dr. Hua-Hua Chang (PI: Dr. Katherine Ryan)

Funded by: Illinois State Board of Education

Experience: Reviewed and replicated Illinois state assessment equating procedures; conducted innovative research on equating and vertical scaling; conducted survey data analysis.

Research Intern 09/2008-10/2008

China Select, Beijing, China (www.chinaselect.cn)

Experience: Assisted test development and item analysis.

SELECT AWARDS

RECIPIENT OF AWARDS

Professor of Impact Award 2023

Arizona State University

This award recognizes outstanding professors who have made a positive impact on students' academic career at ASU.

Outstanding Faculty Mentor Award 2021

Faculty Women's Association, Arizona State University

This award recognizes faculty members who have demonstrated outstanding mentorship to students and/or to other faculty members, particularly women and underrepresented groups.

List of Teachers Ranked as Excellent by Their Students 2013

University of Illinois at Urbana-Champaign

Results are based on campus-wide end-of-course Instructor and Course Evaluation (ICES) questionnaire forms maintained by Measurement and Evaluation, Center for Innovation in Teaching and Learning.

Hardie Dissertation Award (with stipend) 2013

College of Education, University of Illinois at Urbana-Champaign

The award is granted on a competitive basis to support the completion of doctoral dissertation.

Tatsuoka Award (with stipend) 2013

College of Education, University of Illinois at Urbana-Champaign

The award recognizes one graduate student per year with outstanding scholastic and personal accomplishments among those with study interests in statistics and educational measurement.

Jeffrey Tanaka Memorial Award (with stipend) 2011, 2013

Department of Educational Psychology, University of Illinois at Urbana-Champaign

The award alternates yearly between the Department of Psychology and Educational Psychology to recognize outstanding original research or scholarship in quantitative and personality psychology.

Best Paper Honorable Mention Awards (with stipend) 2013

College of Education, University of Illinois at Urbana-Champaign

The award recognizes two excellent papers submitted to the College of Education Graduate Student Conference.

William Chandler Bagley Doctoral Scholarship (with stipend) 2012

College of Education, University of Illinois at Urbana-Champaign

The award recognizes outstanding graduate doctoral students annually.

Beijing Normal University Outstanding Graduate 2009

Beijing Normal University, China

Beijing Regional Outstanding University Graduate 2009

Beijing Department of Education, China

Special Honor Prize, National College Student English Competition 2008

Ministry of Education, China

National Specialty Scholarship (with stipend) 2008

Ministry of Education, China

Beijing Normal University Honor of Students 2006, 2007

Beijing Normal University, China

Beijing Normal University Rank 1 Specialty Scholarship (with stipend) 2006, 2007

Beijing Normal University, China

Jiangsu Province Honor of Students 2005

Jiangsu Department of Education, China

First Prize, China National Biology Olympics for High School Students 2005

Competition Committee, Jiangsu, China

First Prize, China National Physics Olympics for Junior High Students 2002

Competition Committee, China

NOMINATED FOR AWARDS

Zebulon Pearce Distinguished Teaching Award 2024

The College of Liberal Arts and Sciences, Arizona State University

The highest recognition of teaching excellence in The College.

Outstanding Faculty Mentor Award 2020

Graduate College, Arizona State University

This award recognizes outstanding faculty members for their outstanding service to the graduate student and postdoctoral scholar communities through mentoring excellence, commitment to professional development and career advancement and the fostering of inclusive, collaborative academic environments.

Outstanding Faculty Mentor Award 2019

Faculty Women's Association, Arizona State University

This award recognizes faculty members who have demonstrated outstanding mentorship to students and/or to other faculty members, particularly women and underrepresented groups.

Charles Wexler Teaching Award (with stipend) 2016

School of Mathematical and Statistical Sciences, Arizona State University

This award recognizes an outstanding teacher of undergraduate mathematics annually. The winner is selected from nominations made by undergraduate students within the School.

Centennial Professorship Award (with stipend) 2015

Arizona State University Graduate & Professional Student Association

This award recognizes engaged scholarship, emerging leadership, dedication to community service, and demonstration of student-centered practices among ASU's assistant professors and non-tenure-track faculty members.