Curriculum Vitae
Qian (Jackie) Zhang

General Information

University address: Educational Psychology and Learning Systems
College of Education, Health, and Human Sciences
Stone Building 3204F
Florida State University
Tallahassee, Florida 32306-4453
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Professional Preparation

2015   PhD, University of Notre Dame. Major: Quantitative Psychology. Supervisor: Lijuan Wang.

2014   MA, University of Notre Dame. Major: Quantitative Psychology. Supervisor: Lijuan Wang.

Professional Experience

2021–present   Associate Professor, Educational Psychology and Learning Systems, Florida State University.

2015–2021   Assistant Professor, Educational Psychology and Learning Systems, Florida State University.

Honors, Awards, and Prizes

Academy of Scholars, FSU College of Education, Health, and Human Sciences (2024).
Anne Anastasi Distinguished Early Career Contributions Award, American Psychological Association (2024).
Best Paper Award, The International Society for Data Science and Analytics (ISDSA) (2022).
Finalist, the Robert M. Gagné Research Award (For student collaborator Seyedahmad Rahimi), College of Education, Florida State University (2020).
Graduate Teaching Award, College of Education, Florida State University (2020).
Nominated for College of Education Graduate Teaching Award, Florida State University (2020).
Nominated for University Graduate Teaching Award, Florida State University (2019).
Nominee for the Eli J. and Helen Shaheen Award for the best graduate, University of Notre

Dame (2016).
Student Travel Award, Society of Multivariate Experimental Psychology (2014). ($1,500).
Graduate Student Professional Development Award, University of Notre Dame (2014). ($648).
Graduate Student Union Symposium 2nd Place Winner Award, College of Arts and Letters,
        University of Notre Dame (2013). ($100).

Current Membership in Professional Organizations

American Educational Research Association
American Psychological Association
American Psychological Science
Society for Causal Inference
Society for Research on Educational Effectiveness

Teaching

Courses Taught

Advanced Topics in Analysis of Variance Applications (EDF5402)
Field Laboratory Internship (EDF5942)
Multilevel Modeling (EDF7418)
Directed Individual Study (EDF5906)
General Linear Model Applications (EDF5401)
Longitudinal Data Analysis (EDF6937)
Survey Research (EDF6937)
Mediation & Moderation (EDF6937)

New Course Development

Mediation and Moderation (2017)
Longitudinal Data Analysis (2016)

Doctoral Committee Chair

Alsayar, A. A., graduate. (2021).
Li, W., doctoral candidate.
Wang, Q., doctoral candidate.
Yun, S., doctoral candidate.

Doctoral Committee Cochair

Xu, J., graduate. (2019).

Doctoral Committee Member

Crutchfield, D. A., graduate. (2023).
Artifex, J. S., graduate. (2022).
Jakiel, L., graduate. (2022).
Huang, J., graduate. (2022).
Velasquez, G, graduate. (2021).
White, L. A., graduate. (2021).
Moon, J., graduate. (2021).
Yang, X., graduate. (2020).
Chen, S., graduate. (2019).
Loney, B. S., graduate. (2019).
Christesen, E. M., graduate. (2018).
Yun, J. Y., graduate. (2017).
Li, J., doctoral candidate.
Morshed, M. N., doctoral student.

Doctoral Committee University Representative

Ye, K., graduate. (2023).
Govande, S. P., graduate. (2022).
Choi, H., doctoral candidate.

Master's Committee Chair

Yun, S., graduate. (2023).
Fong, K. W., graduate. (2022).
Li, W., graduate. (2021).
Artifex, J. S., graduate. (2017).
Zhang, K., graduate. (2016).
Dorancy, D., student.

Master's Committee Member

Campbell, G., graduate. (2022).
Liu, L., graduate. (2021).
Lewellen, J., graduate. (2021).
Stern, J., graduate. (2021).

Velten, J., graduate. (2021).
Zhou, S., graduate. (2021).
Li, J., graduate. (2020).
Liu, G., graduate. (2020).
Luo, Y., graduate. (2020).
Feiss, R. S., graduate. (2017).
Ming, J., graduate. (2017).
Wu, Y., graduate. (2017).
Barroso Garcia, C., graduate. (2016).
Mulyani, W., graduate. (2016).

Supervision of Student Research Not Related to Thesis or Dissertation

Cheyeon Ha (2019–present).

Gertrudes Velasquez (2017–20).

Seyedahmad Rahimi (2017–20).

Ahreum Han (2019).

Additional Teaching Not Reported Elsewhere

Zhang, Q. (2017). *Guest lecture for the course "Missing Data Analysis"*. Florida State University.

Zhang, Q. (2015). *Instructor for SAS mini-workshops*. University of Notre Dame.

Workshop and Training

Lu, L., & Zhang, Q. (2023). *Practical Mediation Analysis*. International Society for Data Science and Analytics (ISDSA).

Research and Original Creative Work

My research interests focus on (1) causal mediation analysis; (2) longitudinal data analysis, (3) handling missing data problems; (4) addressing issues in synthesizing effects using multilevel models and multilevel structural equation models; and (5) nonparametric modeling and machine learning. My current projects include handling missing data, measurement errors, and/or confounding variables in mediation analysis, moderation analysis and meta-analysis.   Substantively, I am interested in applying statistical methods in developmental, educational, and psychological research.

Note.   (§) co-author was a student when the research was conducted; (*) equal contributions.

Publications

Refereed Journal Articles

§Wang, Q., *Hall, G. J., *Zhang, Q., & §Comella, S. (submitted). Predicting Implementation of Response to Intervention (RTI) in Math Using Elastic Net Logistic Regression. *Frontiers in Psychology: Quantitative Psychology and Measurement*. Manuscript submitted for publication.

Hughes, R., §Wang, Q., Dominguez, R., Lucas, K., Ndubuisi, S., Britsch, B., Levinsky-Raskin, S., Sullivan, A., & Zhang, Q. (submitted). The Bright Future of Online Programming for Girls' STEM Identity Development. *Journal of STEM Outreach*. Manuscript submitted for publication.

§Ha, C., Zhang, Q., & Roehrig, A. (submitted). *Elementary Students' Motivational Regulation and Academic Achievement: Multi-level Modeling Analysis Based on Self-Determination Theory*. Manuscript submitted for publication.

§Lu, Z., Ke, Z., Cheung, R., & Zhang, Q. (submitted). *Synthesizing data from pretest-posttest-control-group designs in mediation meta-analysis*. Manuscript submitted for publication.

§Shen, S., Phillips, B. M., & Zhang, Q. (submitted). *Which child and teacher characteristics are associated with teacher-child relationship quality in Head Start? Evidence from multilevel modeling*. Manuscript submitted for publication.

Becker, B., & Zhang, Q. (in press). Advances in meta-analysis: A unifying modeling framework with measurement-error correction. *British Journal of Mathematical and Statistical Psychology*.

Zhang, Q., & §Wang, Q. (in press). Handling Measurement Error and Omitted Confounders Considering Informativeness of the Confounding Effect under Mediation Modeling. *Structural Equation Modeling: A Multidisciplinary Journal*.

Zhang, Q. (in press). Comparing Methods for Assessing a Difference in Correlations with Dependent Groups, Measurement Error, Non-normality, and Incomplete Data. *Psychological Methods*.

Linero, A. R., & Zhang, Q. (in press). Mediation Analysis using Bayesian Tree Ensembles. *Psychological Methods*.

Zhang, Q. (in press). Meta-analysis of correlation coefficients: A cautionary tale on treating measurement error. *Psychological Methods*.

Zhang, Q., & §Wang, Q. (2024). Correcting for Measurement Error under Meta-analysis of z-transformed Correlations. *British Journal of Mathematical and Statistical Psychology*, *77*, 261-288. doi:https://doi.org/10.1111/bmsp.12328

§Wang, Q., & Zhang, Q. (2023). Cross-Lagged Panel Analysis with Ordinal Items (abstract). *Multivariate Behavioral Research*, *58*(1), 152–153. doi:https://doi.org/10.1080/00273171.2022.2160956

Ho, S., Nickerson, J., & Zhang, Q. (2023). Hive Mind Online: Collective Sensing in Times of Disinformation. *Journal of Digital Social Research*, *4*, 89-129.

§Lin, Q., Nuttall, A. K., Zhang, Q., & Frank, K. A. (2023). How do unobserved confounding mediators and measurement error impact estimated mediation effects and corresponding statistical inferences? Introducing the R package ConMed for sensitivity analysis. *Psychological Methods*, *28*, 339–358. doi:https://doi.org/10.1037/met0000567

§Liu, L., & Zhang, Q. (2023). Parceling Ordinal Items in Latent Interaction Modeling (abstract). *Multivariate Behavioral Research*, *58*(1), 143-144. doi:https://doi.org/10.1080/00273171.2022.2160951

§Ha, C., Roehrig, A. D., & Zhang, Q. (2023). Self-regulated learning strategies and academic achievement in South Korean 6th-graders: A two-level hierarchical linear modeling analysis. *PLOS ONE*, *18*, e0284385. doi:https://doi.org/10.1371/ journal.pone.0284385

§Colgary, C., Swanbrow Becker, M., Zhang, Q., & §Konopa, J. (2022). An Examination of a Cognitive Dissonance Body Image and Health Intervention for the College Classroom. *Journal of Prevention and Health Promotion*. doi:https://doi.org/10.1177/26320770221111759

Yang, Y., §Luo, Y., & Zhang, Q. (2021). A cautionary note on the identification and scaling issues in second-order latent growth models. *Structural Equation Modeling: A Multidisciplinary Journal*, *28*, 302-313. Retrieved from 10.1080/10705511.2020.1747938

§Rahimi, S., Shute, V., & Zhang, Q. (2021). The effect of game difficulty and conceptual difficulty on student persistence in a learning game: A hierarchical linear modeling

approach. *International Journal of Technology in Education and Science*, 5, 141-165. doi:https://doi.org/10.46328/ijtes.118

Zhang, Q., & Yang, Y. (2020). Autoregressive mediation models using composite scores and latent variables: Comparisons and recommendations. *Psychological Methods*, *25*, 472-495. doi:https://doi.org/10.1037/met0000251

§Xu, J., Zhang, Q., & Yang, Y. (2020). Impact of Violations of Measurement Invariance in Cross-lagged Panel Mediation Models. *Behavior Research Methods*, *52*, 2623–2645. doi:https://doi.org/10.3758/s13428-020-01426-z

Wang, L., & Zhang, Q. (2020). Investigating the impact of time intervals and time lags on autoregressive mediation modeling: Some novel findings, implications, and recommendations. *Psychological Methods*, *25*, 271-291. doi:https://doi.org/10.1037/met0000235

Zhang, Q., Yuan, K-H, & Wang, L. (2019). Asymptotic bias of normal-distribution-based maximum likelihood estimates of moderation effects with data missing at random. *British Journal of Mathematical and Statistical Psychology*, *72*, 334-354. doi:https://doi.org/10.1111/bmsp.12151

*Ke, Z., *Zhang, Q., & Tong, X. (2019). Bayesian meta-analytic SEM: A one-stage approach to modeling between-study heterogeneity in structural parameters. *Structural Equation Modeling: A Multidisciplinary Journal*, *26*, 348-370. doi:https://doi.org/10.1080/10705511.2018.1530059

§Velasquez, G., & Zhang, Q. (2019). Cross-lagged Panel Mediation Models with Latent Constructs: Specification and Estimation (abstract). *Multivariate Behavioral Research*, *55*, 142-143. doi:https://doi.org/10.1080/00273171.2019.1695569

Nuttall, A. K., Zhang, Q., Valentino, K., & Borkowski, J. G. (2019). Intergenerational risk of parentification and infantilization to externalizing moderated by child temperament. *Journal of Marriage and Family*, *81*, 648-661. doi:https://doi.org/10.1111/jomf.12562

Wang, L., Zhang, Q., Maxwell, S. M., & Bergeman, C. S. (2019). On standardizing within-person effects: Potential problems of global standardization. *Multivariate Behavioral Research*, *54*, 382-403. doi:10.1080/00273171.2018.1532280

Englert, C., Havik, L., Zhang, Q., & Oudejans, R. R. D. (2018). Can you go the extra mile? The effect of ego depletion on endurance performance. *International Journal of Sport Psychology*, *49*, 505–520. doi:https://doi.org/10.7352/IJSP.2018.49.505

Samuel, R., Englert, C., Zhang, Q., & Basevitch, I. (2018). Hi ref, are you in control? Self-control, ego-depletion, and performance in soccer referees. *Psychology of Sport & Exercise*, *38*, 167-175. doi:https://doi.org/10.1016/j.psychsport.2018.06.009

Zhang, Q., Wang, L., & Bergeman, C. S. (2018). Multilevel autoregressive mediation models: Specification, estimation, and applications. *Psychological Methods*, *23*, 278-297. doi:http://dx.doi.org/10.1037/met0000161

Zhang, Q., & Phillips, B. M. (2018). Three-level longitudinal mediation with nested units: How does an upper-level predictor influence a lower-level outcome via an upper-level mediator over time? *Multivariate Behavioral Research*, *53*, 655-675. doi:10.1080/00273171.2018.1471975

Zhang, Q., & Wang, L. (2017). Moderation analysis with missing data in the predictors. *Psychological Methods*, *22*, 649-666. doi:http://dx.doi.org/10.1037/met0000104

Zhang, Q., & Wang, L. (2015). Evaluating methods for moderation analysis with missing data in the predictors (abstract). *Multivariate Behavioral Research*, *50*(1), 144-145. doi:https://doi.org/10.1080/00273171.2014.989017

Zhang, Q., & Wang, L. (2014). Aggregating and testing intra-individual correlations: Methods and comparisons. *Multivariate Behavioral Research*, *49*(2), 130-148. doi:https://doi.org/10.1080/00273171.2013.870877

Han, P., Lu, L., Zhang, Q., & Dong, Z. (2010). PID controller parameter estimation based on particle swarm optimization (PSO) guided by empirical formulas. *Journal of North China Electric Power University:Natural Science Edition*, *37*, 73-77.

Han, P., Dong, Z., & Zhang, Q. (2008). Development of Automation Theory and Its Application in Power Plants. *Journal of North China Electric Power University:Natural Science Edition*, *6*.

Refereed Proceedings

Zhang, Q., Dong, Z., Han, P., Wu, Z., & Gao, F. (2008). The optimization of controller parameters in thermal system using initial pheromone distribution in ant colony optimization. In *IEEE International Conference on Information Reuse and Integration* (pp. 22-27). Las Vegas, NV.

Wang, T., Zhou, L., Han, P., & Zhang, Q. (2007). Complete Compensation for Time Delay in Networked Control System Based on GPC and BP Neural Network. In *IEEE International Conference on Machine Learning and Cybernetics*. Hong Kong, China.

Presentations

Invited Presentations at Conferences

Wang, L., Zhang, Q., Maxwell, S. E., & Bergeman, C. S. (presented 2017). *On estimating within-person relations using mixed-effects modeling*. Presentation at Invited talk presented at the 2017 ICSA applied statistics symposium, International Chinese Statistical Association, Chicago, IL. (International)

Refereed Presentations at Conferences

Zhang, Q., & §Liu, L. (submitted). *Mediation modeling using factor scores and composite scores: Comparisons and recommendations*. Presentation submitted for approval.

§Wang, Q., *Zhang, Q., *Hall, G., & §Comella, S. (submitted). *Predicting Implementation of Response to Intervention (RTI) in Math Using Elastic Net Logistic Regression*. Presentation submitted for approval.

Zhang, Q., §Swanson, P., & Slate, E. H. (accepted). *Individual Covariate Selection under Growth Curve Modeling Using Bayesian Penalization*. Presentation to be given at 2024 APA Annual Convention, American Psychological Association. (International)

Hall, G., Zhang, Q., & §Wang, Q. (presented 2024). *Who Implements Response to Intervention (RTI) in Math, and Does RTI Benefit Math Achievement? A Multilevel Quasi-Experimental Study*. Presentation at 2024 AERA Annual Meeting, American Educational Research Association. (International)

§Slik, D., Cabell, S., §Wang, S., & Zhang, Q. (presented 2023). *Interactive Read-Alouds and Kindergarteners' Vocabulary Development: Text Genre as a Moderator*. Presentation at 2023 Society for Research in Child Development Biennial Meeting, Society for Research in Child Development. (International)

§Liu, L., Zhang, Q., Yang, Y., & §Li, W. (presented 2023). *Latent Interaction Modeling Using Parcels: Comparing Product Indicator and Latent Moderated Structural Equation Methods*. Presentation at 2023 AERA Annual Meeting, American Educational Research Association. (International)

Zhang, Q., Liu, X., & Ke, Z. (presented 2023). *Multilevel Modeling under Multisite Quasi-experimental Trials: Considerations of Coding Strategies, Unbalanced Groups, and Heterogeneous Variances*. Presentation at 2023 American Causal Inference Conference, The Society for Causal Inference, Austin, Texas. (National)

Ke, Z., Lu, Zhi-Ming, Cheung, R., & Zhang, Q. (presented 2023). *Synthesizing data from pretest-posttest-control-group designs in mediation meta-analysis*. Presentation at 2023

ISDSA Applied Data Science Meeting, International Society for Data Science and Analytics (ISDSA). (International)

Zhang, Q. (presented 2022). *Causal Mediation Analysis with Bayesian Informative Priors of the Confounding Effect*. Presentation at the meeting of American Psychological Science. (International)

§Wang, Q., & Zhang, Q. (presented 2022). *Correcting for measurement error under meta-analysis of z-transformed correlation coefficients*. Presentation at the meeting of Society for Research Synthesis Methodology. (International)

§Wang, Q., & Zhang, Q. (presented 2022). *Cross-lagged Panel Analysis with Categorical Items: Investigation of Robust Continuous SEM Estimation with A Relatively Large Number of Categories*. Presentation at the meeting of Society of Multivariate Experimental Psychology. (National)

§Liu, L., & Zhang, Q. (presented 2022). *Latent Interaction Modeling: Evaluating Alternative Analytic Methods and Parceling Strategies*. Presentation at the meeting of Society of Multivariate Experimental Psychology. (National)

Zhang, Q. (presented 2022). *Meta-Analysis of Correlation Coefficients: A Cautionary Tale on Treating Measurement Error*. Presentation at the meeting of International Society for Data Science and Analytics. (International)

Ke, Z., Lu, Zhi-Ming, Cheung, R., & Zhang, Q. (presented 2022). *Synthesizing data from pretest-posttest-control-group designs in meta-analyses of mediating mechanisms*. Presentation at the meeting of International Meeting of the Psychometric Society (IMPS). (International)

Zhang, Q., & §Wang, Q. (presented 2021). *Cross-lagged Panel Analysis When Constructs Are Measured Using Ordinal Scales*. Presentation at 2021 American Educational Research Association Conference, American Educational Research Association, Virtual. (International)

§Velasquez, G., & Zhang, Q. (presented 2021). *Effects in cross-lagged panel mediation models under sub-optimal data conditions*. Presentation at 2021 Annual Meetings of the Psychometric Society, Psychometric Society, Virtual. (International)

§Wang, Q., & Zhang, Q. (presented 2021). *Latent-variable Causal Mediation Analysis with Post-treatment Confounding Variables*. Presentation at 2021 Annual Meetings of the Psychometric Society, Psychometric Society, Virtual. (International)

Zhang, Q., & Yang, Y. (presented 2020). *Autoregressive mediation models using composite scores and latent variables: Comparisons and recommendations*. Presentation at the meeting of American Educational Research Association, San Francisco, CA. (International)

§Cheyeon Ha, & Zhang, Q. (presented 2020). *Effects of Students' Self-regulated Learning Strategies on Math Performances with HLM model*. Presentation at 2020 American Psychological Science Conference, American Psychological Science, Chicago, IL. (International)

§Rahimi, S., Shute, V., & Zhang, Q. (presented 2020). *The effect of game difficulty and conceptual difficulty on student persistence in a learning game: A hierarchical linear modeling approach*. Presentation at the meeting of American Educational Research Association, San Francisco, CA. (International)

§Velasquez, G., & Zhang, Q. (presented 2019). *Cross-lagged panel mediation models with latent constructs: Specification and estimation*. Presentation at the meeting of Society of Multivariate Experimental Psychology, Baltimore, MD. (National)

§Rahimi, S., Shute, V. J., & Zhang, Q. (presented 2019). *The effects of game difficulty and conceptual difficulty on students' persistence in a learning game*. Presentation at 2019 Annual Meeting, Florida Educational Research Association, St. Petersburg, FL. (State)

Yang, Y., §Luo, Y., & Zhang, Q. (presented 2018). *An Evaluation of Effect-coding Identification Method Under Violations of Longitudinal Measurement Invariance in the Curve-of-Factors Model*. Presentation at 2018 Annual Conference, Florida Educational Research Association, St Petersburg, FL. (State)

Wang, L., & Zhang, Q. (presented 2018). *Investigating the impact of time intervals and time lags on autoregressive mediation modeling: Result interpretations, effect reporting, and temporal designs*. Presentation at 2018 Annual Meeting, Society of Multivariate Experimental Psychology, Albuquerque, NM. (National)

§Velasquez, G., & Zhang, Q. (presented 2017). *Specification of Time in Longitudinal Mediation Analysis*. Presentation at ASA 2017 Florida Chapter Meeting, American Statistical Association, Jacksonville, FL. (State)

§Velasquez, G., & Zhang, Q. (presented 2017). *Specification of Time in Longitudinal Mediation Analysis*. Presentation at 2017 AERA In-Progress Research Gala, American Educational Research Association. (International)

Zhang, Q. (presented 2017). *Three-level longitudinal mediation with nested units: How does an upper-level predictor influence a lower-level outcome via an upper-level mediator over time?* Presentation at 2017 Annual Meeting, American Educational Research Association, San Antonio, TX. (International)

Nuttall, A. K., Zhang, Q., §Du, H., Wang, L., & Maxwell, S. E. (presented 2016). *Bias in cross-sectional examinations of longitudinal mediation with a time-invariant predictor*. Presentation at 3rd Biennial Developmental Methods Conference, Co-Organized by Elizabeth Grandfield, Todd Little and Noel Card, Whitefish, MT. (National)

Wang, L., & Zhang, Q. (presented 2016). *Investigating different data handling approaches for modeling mediation effects using the autoregressive mediation model*. Presentation at 2016 Annual Meeting, Society of Multivariate Experimental Psychology, Richmond, VA. (National)

Zhang, Q., Wang, L., & Bergeman, C. (presented 2016). *Multilevel autoregressive mediation models: Specification, estimation, and applications*. Presentation at Modern Modeling Methods, Neag School of Education, University of Connecticut, Storrs, CT. (National)

Ke, Z., Zhang, Q., & Tong, X. (presented 2016). *Random effect meta-analytic structural equation modeling: A Bayesian approach*. Presentation at 2016 APA Annual Convention, American Psychological Association, Denver, CO. (International)

Zhang, Q., & Wang, L. (presented 2014). *Evaluating methods for moderation analysis with missing data in the predictors*. Presentation at the meeting of Society of Multivariate Experimental Psychology Meeting, Nashville, TN. (National)

Nuttall, A. K., Zhang, Q., Valentino, K., & Borkowski, J. G. (presented 2014). *Longitudinal moderation analysis with missing and non-normal data: Comparing methods using data from a study of at-risk parenting*. Presentation at the meeting of Society for Research in Child Development. (International)

Zhang, Q., & Wang, L. (presented 2014). *Methods for moderation analysis with missing data in the predictors*. Presentation at the 79th Annual Meeting, Psychometric Society, Madison, WI. (International)

Zhang, Q., & Wang, L. (presented 2013). *The analyses of time lag and model specification for longitudinal mediation under auto-regressive models*. Presentation at the 25th Annual Convention, American Psychological Science, Washington DC. (International)

Zhang, Q., & Wang, L. (presented 2011). *Aggregating and testing intra-individual correlations: Methods and comparisons*. Presentation at the 119th Annual Convention, American Psychological Association, Washington DC. (International)

Refereed Presentations at Symposia

Englert, C., Havik, L., Zhang, Q., & Oudejans, R. R. D. (presented 2019). Can you go the extra mile? The effect of ego depletion on endurance performance. In Chris Englert (Chair), *On the importance of self-control in sport and exercise psychology*. Presentation at the

meeting of European Congress of Sport & Exercise Psychology, Muenster, Germany. (International)

Zhang, Q. (presented 2019). Three-level longitudinal mediation with nested units: How does an upper-level predictor influence a lower-level outcome via an upper-level mediator over time? In Tong, X (Chair), *Advanced Bayesian Methods in Popular Psychological Modeling*. Presentation at the meeting of Association for Psychological Science, Washington, D.C. (International)

Zhang, Q., & Wang, L. (presented 2013). The impact of time intervals and time lags in the use of longitudinal autoregressive models. In *the Graduate Student Union Symposium*. Presentation at the meeting of University of Notre Dame. (Local)

Invited Lectures and Readings of Original Work

Zhang, Q. (2022). *Exploring Optimal Longitudinal Mediation Modeling with Multi-Item Psychological Scales*. Delivered at University of Virginia. (National)

Zhang, Q. (2016). *A comparison of methods for estimating moderation effects with missing data in the predictors*. Delivered at Department of Statistics, Florida State University, Tallahassee, FL. (Local)

Contracts and Grants

Contracts and Grants Funded

Fleury, Veronica (PI), Zhang, Qian (Co-PI), Farquharson, Kelly (Co-PI), & Bush, Erin (Co-PI). (2023–2025). *Developing an Adaptive Professional Development Model for School Professionals' Implementation of Shared Reading Activities*. Funded by Florida State University Council on Research & Creativity Seed Grant program. Total award $99,731.

Hughes, Roxanne (PI), Zhang, Qian (Co-PI), Peterson, Karen A (Co-PI), & Olukeye, Abimbola (Co-PI). (Aug 2022–Jul 2025). *BRITE Girls Online STEM Practices: Building Relevance and Identity to Transform Experiences*. Funded by National Science Foundation. Total award $1,902,274.

Hall, Garret (PI), & Zhang, Qian (Co-PI). (2022–2024). *Who Implements Response to Intervention (RTI) in Math, and Does RTI Benefit Math Achievement? K-fold Cross-Validation and Causal Inference under A Multilevel Quasi-Experimental Study*. Funded by American Educational Research Association with Support from National Science Foundation. Total award $35,000.

Zhang, Qian (PI). (2022–2024). *Handling Covariate Selection Uncertainty and Measurement Error in Causal Mediation Analysis: A Two-Step Approach to More Accurate Intervention Studies*. Funded by Spencer Foundation. Total award $50,000.

Zhang, Q. (PI). (May 2021–Aug 2021). *COFRS: Latent-variable Causal Mediation Modeling with Unobserved Confounding Variables*. Funded by Florida State University Council on Research and Creativity. Total award $20,000.

Ke, Z., Zhang, Q., & Tong, X. (2018–2020). *Random Coefficient Meta-Analytic Structural Equation Modeling: A Bayesian Approach to Identifying Causes of Between-Study Variations*. Funded by National Natural Science Foundation of China. (31700986). Total award $37,500.

Zhang, Q. (PI). (May 2017–Aug 2017). *COFRS: Three-Level Longitudinal Mediation with Nested Units: How Does an Upper-Level Predictor Influence a Lower-Level Outcome Via an Upper-Level Mediator Over Time?* Funded by Florida State University Council on Research and Creativity. Total award $14,000.

Zhang, Q. (PI). (May 2016–Aug 2016). *FYAP: A Robust Approach to Handling Missing Predictors in Moderation Analysis*. Funded by Florida State University Council on Research and Creativity. Total award $20,000.

Contracts and Grants Pending

Tong, X. (2024). *Bayesian Longitudinal Data Modeling in Education Sciences. Role: Co-I or site PI*. Submitted to Institute of Education Sciences. Total award $39,404.

Dennis, L. (2024). *Developing an Adaptive Professional Development   Model to Foster Print Knowledge Among Young   Children. Role: Co-PI*. Submitted to Spencer Foundation. Total award $374,901.

Tong, X. (2024). *Modeling Longitudinal Education Data with Compositional Covariates: Addressing High-dimensionality, Missingness and Diverse Populations. Role: Co-I*. Submitted to Institute of Education Sciences. Total award $58,451.

Linero, A., & Zhang, Q. (2024). *Bayesian Machine Learning for Mediation and Other Causal Inference Problems*. Submitted to National Science Foundation. Total award $70,000.

Jenkins, L. (2023). *Understanding youth bystander behavior in the cyber context: A longitudinal investigation of social cognitive predictors and online disinhibition. Role: Co-PI*. Submitted to National Science Foundation. Total award $497,340.

Contracts and Grants Denied

Jenkins, L. (2023). *Mixed Methods Approach to Studying Bystander Behavior in the Cyber Context. Role: Consultant*. Submitted to Spencer Foundation. Unspecified award amount.

Zhang, Qian (PI), & Linero, Antonio (Co-PI). (2022). *Causal Mediation Analysis with Fallible Measures: Bayesian Ensemble Trees based on Latent Scores*. Submitted to National Science Foundation. Unspecified award amount.

Brad Cox (PI), & Zhang, Qian (Co-PI). (2020). *Identifying Promising Interventions to Improve College Outcomes for Students with Autism*. Submitted to Institute of Education Sciences. Unspecified award amount.

Lo, Jane Ching-Wen (PI), & Zhang, Qian (Co-PI). (Jul 2019). *Race Talk in Civics Classrooms*. Submitted to Spencer Foundation. Unspecified award amount.

Munn, J. (PI), Terricciano, A. (Co-I), & Zhang, Q. (Co-I). (Jan 2017). *Outlook: Life Review with Nursing Home Residents at the End of Life*. Submitted to National Institute of Health. Unspecified award amount.

Ke, Z., & Zhang, Q. (2016). *Random Coefficient Meta-Analytic Structural Equation Modeling: A Bayesian Approach to Identifying Causes of Between-Study Variations*. Submitted to National Natural Science Foundation of China. Unspecified award amount.

Ke, Z., & Zhang, Q. (2015). *Estimation and Test of Intra-individual Brain-Behavior Correlations*. Submitted to National Natural Science Foundation of China. Unspecified award amount.

Whalon, K., Morgan, L., Phillips, B., & Zhang, Q. (2015). *Adapting an Evidence-Based Comprehensive Preschool Curriculum to Support the Learning of Young Children with Autism Spectrum Disorder*. Submitted to Institute of Education Sciences. Unspecified award amount.

Service

Florida State University

FSU University Service

Reviewer for COFRS proposals, FSU Office of Research (2017–present).

FSU College Service

Coordinator, College of Education Statistical and Research Design Consultation Services (2022–2023).

EPLS representative, CORE (2021–2023).

Member, Search Committee for a tenure-track position at Department of Sports Management (2021–2022).

Member, Search Committee for a tenure-track position at the Learning & Cognition program in EPLS (2021–2022).

Member, Search Committee for a tenure-track position at Department of Sports Management (2020–2021).

Chair, Technology committee (2016–2020).

EPLS representative, McDonald Scholarship Committee (2019).

FSU Department Service

Program Coordinator, Measurement & Statistics Program (2024–present).

Coordinator, Measurement & Statistics Online Master's Program (2022–present).

Coordinator, Measurement & Statistics Certificate Program (2022–2023).

Member, Evaluation Committee (2016–2021).

Member, Scholarship committee (2016–2020).

EPLS sub-committee member, CORE (2018–2019).

Member, Foundation committee (2018–2019).

EPLS representative, Commencement (2018).

The Profession

Editor for Refereed Journals

Associate Editor, *British Journal of Mathematical and Statistical Psychology* (2024–present).

Guest Editor, *Journal of Behavioral Data Science* (2020–present).

Guest editor, *SAGE Open* (2019–present).

Editorial Board Membership(s)

Research Methods in Applied Linguistics (2024–present).

Guest Reviewer for Refereed Journals

Journal of Educational and Behavioral Statistics (2022–present).

Journal of Management Information Systems (2020–present).

Psychometrika (2019–present).

Statistics in Medicine (2019–present).

Structural Equation Modeling: A Multidisciplinary Journal (2019–present).

British Journal of Mathematical and Statistical Psychology (2018–present).

Research Synthesis Methods (2018–present).

SAGE Open (2018–present).

Behavioral Research Methods (2017–present).

American Educational Research Journal (2016–present).

Aging and Mental Health (2015–present).

Journal of Psychoeducational Assessment (2015–present).

Multivariate Behavioral Research (2014–present).

Psychological Methods (2014–present).

Reviewer or Panelist for Grant Applications

National Science Foundation Methodology, Measurement, and Statistics (MMS) Program (2021).

Service to Professional Associations

Organizing committee, International Society for Data Science and Analytics (ISDSA) (2019–present).

Members-At-Large, American Educational Research Association Educational Statisticians SIG (2022–2023).

Proposal Review Committee Chair, Florida Educational Research Association (2021–2023).

Reviewer, American Educational Research Association (2018–2020).

Reviewer, Society for Research on Adolescence (2019).

Committee member, Distinguished Paper Award, Florida Educational Research Association (2018–2019).

Reviewer for APA annual convention, American Psychological Association, Division 5 (2015).

Reviewer for Annual Meeting of the Florida Educational Research Association, Florida Educational Research Association (2015).

Reviewer for student pre-conference, Society of Multivariate Experimental Psychology (2015).

Invited speaker, Graduate Student Business Meeting Luncheon, Florida Educational Research Association (2015).

Service to Other Universities

Judge for Northern Indiana Regional Science Fair, *University of Notre Dame* (2014).

Statistical Consultant, *Department of Psychology, University of Notre Dame* (2013–2014).

Additional Service Not Reported Elsewhere

Zhang, Q. (2009). *English interpreter for Operation Guide of Power Grid*. State Grid Corporation of China.