CURRICULUM VITAE

YAN WANG

Department of Psychology
College of Fine Arts, Humanities and Social Sciences
University of Massachusetts Lowell
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EDUCATION

University of South Florida, Tampa, FL — 2018
Ph.D. Educational Measurement & Research
- Cognate*:* Educational Psychology
- Graduate Certificate in Evaluation
- Dissertation: Covariates in factor mixture modeling: Investigating measurement invariance across unobserved groups

Boston College, Boston, MA — 2013
M.Ed. Curriculum and Instruction

Xiamen University, Xiamen, China — 2011
B.A. English Literature
B.S. Economics

ACADEMIC EXPERIENCE

2018 – present — Assistant Professor
Department of Psychology
College of Fine Arts, Humanities and Social Sciences
University of Massachusetts Lowell

GRANTS AND CONTRACTS

Pending

The Spencer Foundation, Small Research Grants Program
Title: Developing Cross-Classified Random Effects Growth Mixture Models to Incorporate and Understand Student Mobility
Role: **Principal Investigator**
Duration: 9/1/2022-8/31/2024
Amount: $49,781
Status: Pending (*has been selected as one of the 44 finalists among over 300 proposals; final decision will be made in June 2022*)

National Institutes of Health, National Institute of Mental Health R01
Title: The Impact of Food Pantry Accessibility, Customer Experience, and Nutrition on Food Insecurity, Mental Illness in the Era of COVID-19
Role: Co-Investigator (PI: Yu)
Duration: 9/1/2022-8/31/2026
Amount: $1,565,000
Status: Pending

National Institutes of Health, National Library of Medicine R01
Title: Systems for Helping Patients Understand Their Clinical Visits
Role: Co-Investigator (PI: Yu)
Duration: 7/1/2022-6/30/2026
Amount: $1,611,571
Status: Pending

Department of Education, China
Title: A Comparative Study of Narrative Language Development Among Children in China and U.S. from the Perspective of Language Typology
Role: Co-Investigator (PI: Zhang)
Duration: 8/1/2022-12/31/2025
Amount: $31,447
Status: Pending

Funded

American Educational Research Association (AERA) – Division D
Title: Incorporating Machine Learning into Factor Mixture Modeling: Selection of Covariates to Predict Population Heterogeneity
Role: **Principal Investigator**
Duration: 3/1/2021-8/1/2021
Amount: $4,921

National Institutes of Health, Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) R00
Title: Virtual Reality-based Rehabilitation for Children with Traumatic Brain Injuries
Role: Co-Principal Investigator (PI: Shen)
Duration: 9/3/2020-8/31/2023
Amount: $713,112

University of Massachusetts Lowell Internal Seed Grant
Title: Evaluating Statistical Models for the Disaggregation of Between-Person and Within-Person Effects
Role: **Principal Investigator**
Duration: 6/1/2019-5/31/2022
Amount: $9,107

Not Funded

National Science Foundation, Directorate for Education and Human Resources (EHR) Core Research Program
Title: Collaborative Research: Coupling Discipline-based Growth Mindset and Learning Strategies Interventions in Postsecondary Chemistry and Discerning the Effects on Delivery Mode
Role: External Evaluator (PI: Ye)
Duration: 9/1/2022-8/30/2025
Budget: $469,752

Department of Education, China
Title: A Comparative Study of Narrative Language Development Among Children in China and U.S.
Role: Co-Investigator (PI: Zhang)
Duration: 9/1/2021-9/30/2024
Budget: $15,220

The Spencer Small Research Grant
Title: Fostering Inclusion of Culturally and Linguistically Diverse Students with Disabilities: A School-Wide Approach
Role: Consultant (PI: Ramlackhan)
Duration: 6/1/2020-12/31/2021
Budget: $50,000

ACADEMIC AND PROFESSIONAL PUBLICATIONS

Summary

Across All Years
Peer-Reviewed Journal Articles = 34 (methodological 23; substantive 11)
Book Chapters/Encyclopedia Entries = 2
First-Authored Peer-Reviewed Journal Articles = 8
Second-Authored Peer-Reviewed Journal Articles = 13

UML
Peer-Reviewed Journal Articles = 23 (methodological 13; substantive 10)
Book Chapters/Encyclopedia Entries = 1
First-Authored Peer-Reviewed Journal Articles = 5
Second-Authored Peer-Reviewed Journal Articles = 10
Submitted Papers Under Review/Revisions = 9

* indicates graduate student co-author; year is bolded for publications that are within the tenure and promotion evaluation period (September 1st, 2018 to present); for these publications, impact factor (IF) of the journal at the year of publication and five-year IF are retrieved from the journal website and reported when available.

Peer Reviewed Journal Articles (*n* = 34)

Wang, Y., Kim, E., Joo, S-H., Chun, S., Alamri, A., Lee, P., & Stark, S. (**2022**). Reconsidering multilevel latent class models: Can level-2 latent classes affect item response patterns? *Journal of Experimental Education, 90*(1), 158-172. https://doi.org/10.1080/00220973.2020.1737913 [IF = 2.623; 5-year IF = 3.114]

Wang, Y., Kim, E., & Yi, Z. (**2022**). Robustness of latent profile analysis to measurement noninvariance between profiles. *Educational and Psychological Measurement, 82*(1), 5-28. https://doi.org/10.1177/0013164421997896 [IF = 2.821; 5-year IF = 3.279]

Bugos, J., & **Wang, Y.** (**2022**). Piano training enhances executive functions and psychosocial outcomes in aging: Results of a randomized controlled trial. *Journal of Gerontology: Psychological Sciences.* Advance online publication. https://doi.org/10.1093/geronb/gbac021 [IF = 4.077; 5-year IF = 5.060]

Joo, S-H., **Wang, Y.**, Ferron, J. M., Moeyaert, M., Beretvas, S. N., & van den Noortgate, W. (**2022**). Comparison of within- and between-series effect estimates in the meta-analysis of multiple baseline studies. *Journal of Educational and Behavioral Statistics, 47*(2), 131-166. https://doi.org/10.3102/10769986211035507 [IF = 3.288; 5-year IF = 4.387]

Kim, E., Nguyen, D., *Liu, S., & **Wang, Y.** (**2022**). Mixed effects of item parceling on performance of factor mixture modeling. *Structural Equation Modeling: A Multidisciplinary Journal, 29*(2), 207-217. https://doi.org/10.1080/10705511.2021.1965483 [IF = 6.125; 5-year IF = 8.372]

Shen, J., & **Wang, Y.** (**2022**). Application of second-order growth mixture modeling (SO-GMM) to longitudinal TBI outcome research: 15-year trajectories of life satisfaction in adolescents and young adults (AYA) as an example. *Archives of Physical Medicine and Rehabilitation.* Advance online publication. https://doi.org/10.1016/j.apmr.2021.12.018 [IF = 3.966; 5-year IF = 3.507]

Shen, J., **Wang, Y.**, *Kurpad, N., & *Schena, D. (**2022**). A systematic review on the impact of hot and cool executive functions on pediatric injury risks: A meta-analytic structural equation modeling approach. *Prevention Science*, 23, 366-377. https://doi.org/10.1007/s11121-021-01271-2 [IF = 3.103; 5-year IF = 3.361]

*Yi, Z., Chen, Y.-H., *Yin, Y., *Cheng, K., **Wang, Y**., *Nguyen, D. T., Pham, T. V., & Kim, E. S. (**2022**). Brief research report: A comparison of robust tests for homogeneity of variance in factorial ANOVA. *Journal of Experimental Education, 90*(2), 505-520. https://doi.org/10.1080/00220973.2020.1789833 [IF = 2.623; 5-year IF = 3.114]

Wang, Y., Hsu, H.-Y., & Kim, E. (**2021**). Investigating the impact of covariate inclusion on sample size requirements of factor mixture modeling: A Monte Carlo simulation study. *Structural Equation Modeling: A Multidisciplinary Journal, 28*(5), 716-724. https://doi.org/10.1080/10705511.2021.1910036 [IF = 6.125; 5-year IF = 8.372]

Wang, Y., Kim, E., Ferron, J. M., Dedrick, R., Tan, T. X., & Stark, S. (**2021**). Testing measurement invariance across unobserved groups: The role of covariates in factor mixture modeling. *Educational and Psychological Measurement, 81*(1), 61-89. https://doi.org/10.1177/0013164420925122 [IF = 2.821; 5-year IF = 3.279]

Chenane, J. L., Wright, E. M., & **Wang, Y.** (**2021**). The effects of police contact and neighborhood context on delinquency and violence. *Victims & Offenders*, *16*(4), 495-518. https://doi.org/10.1080/15564886.2020.1815112 [IF = 1.789; 5-year IF = 2.373]

*Jenkins, A., *Thoman, S., **Wang, Y.**, von der Embse, N., Kilgus, S., & Reynolds, F. (**2021**). Identifying type and evaluating stability of behavioral risk. *Psychology in the Schools, 58*(11), 2225-2237. https://doi.org/10.1002/pits.22587 [IF = 1.774]

Ramlackhan, K., & **Wang, Y.** (**2021**). Urban school district performance: A longitudinal analysis of achievement. *Urban Education*. Advance online publication. https://doi.org/10.1177/00420859211044947 [IF = 4.382; 5-year IF = 4.655]

Tan, T. X., **Wang, Y.**, *Hao, S-W, & Li, Y. (**2021**). Female adopted Chinese-American youth's sense of exclusion and short-and long-term adjustment. *American Journal of Orthopsychiatry, 91*(5), 671-681. https://doi.org/10.1037/ort0000568 [IF = 1.769; 5-year IF = 2.629]

*Yi, Z., **Wang, Y.**, & Tan, T. X. (**2021**). Evidence for a higher-order ESEM structure of ADHD in a sample of Chinese children. *Journal of Psychopathology and Behavioral Assessment, 43,* 376-387. https://doi.org/10.1007/s10862-020-09837-0 [IF = 2.645; 5-year IF = 3.479]

Zhang, F. F., **Wang, Y.,** McCabe, A., & Fan, H. H. (**2021**). On referential abilities in personal narratives of Chinese children aged three to six years. *Lingua: International Review of General Linguistics, 260,* 1-13. https://doi.org/10.1016/j.lingua.2021.103108 [IF = 0.643; 5-year IF = 0.975]

Kim, E., **Wang, Y.**, & *Liu, S. (**2020**). The impact of measurement noninvariance on latent change score modeling: A Monte Carlo simulation study. *Structural Equation Modeling: A Multidisciplinary Journal, 27*(6), 918-930. https://doi.org/10.1080/10705511.2020.1711759 [IF = 3.638; 5-year IF = 5.993]

*Pham, T. V., Kromrey, J. D., Chen, Y-H., Kim, E. S., *Nguyen, D. T., & **Wang, Y.** (**2020**). ANOVA robust: A SAS macro for parametric tests of mean differences in one-factor ANOVA models. *Journal of Statistical Software, Code Snippets, 95*(2), 1-16. https://doi.org/10.18637/jss.v095.c02 [IF = 13.642; 5-year IF = 21.629]

*Nguyen, D. T., Kim, E. S., **Wang, Y.,** *Pham, T. V., Kromrey, J., & Chen, Y-H. (**2019**). Empirical comparisons of tests for one-factor ANOVA under heterogeneity and non-normality: A Monte Carlo study. *Journal of Modern Applied Statistical Methods, 18*(2), eP2906. https://doi.org/10.22237/jmasm/1604190000

Tan, X. T., *Yi, Z., Kamphaus, R., **Wang, Y.**, *Li, Z., & *Cheng, K. (**2019**). Testing the reliability and construct validity of the Chinese translation of BASC-3-SRP for 12-18-year old youth. *Journal of Psychoeducational Assessment, 38*(5), 599-612. https://doi.org/10.1177/0734282919874257 [IF = 1.256; 5-year IF = 1.626]

Zhang, F., McCabe, A., Ye, J., **Wang, Y.**, & Li, X. (**2019**). A developmental study of the narrative components and patterns of Chinese children aged three to six years. *Journal of Psycholinguistic Research, 48*(2), 477-500. https://doi.org/10.1007/s10936-018-9614-3 [IF = .655; 5-year IF = .791]

Wang, Y., *Pham, T. V., *Nguyen, D. T., Kim, E. S., Chen, Y-H., Kromrey, J. D., *Yi, Z., & *Yin, Y. (**2018**). Evaluating the efficacy of conditional analysis of variance under heterogeneity and non-normality. *Journal of Modern Applied Statistical Methods*, *17*(2), eP2701. https://doi.org/10.22237/jmasm/1555340224

Kim, E. S. & **Wang, Y.** (**2018**). Investigating sources of heterogeneity with 3-step multilevel factor mixture modeling: Beyond testing measurement invariance in cross-national studies. *Structural Equation Modeling: A Multidisciplinary Journal, 26*(2), 165-181. https://doi.org/10.1080/10705511.2018.1521284 [IF = 4.426; 5-year IF = 6.742]

Tan, T. X., **Wang, Y.**, Cheah, C., & Wang, G. H. (2018). Reliability and construct validity of Children's Sleep Habits Questionnaire in Chinese kindergartners. *Sleep Health: Journal of the National Sleep Foundation, 4*(1), 104-109. https://doi.org/10.1016/j.sleh.2017.10.008

Wang, Y., & Kim, E. S. (2017). Evaluating model fit and structural coefficient bias: A Bayesian approach to multilevel bifactor model misspecification. *Structural Equation Modeling: A Multidisciplinary Journal, 24*(5), 699-713. https://doi.org/10.1080/10705511.2017.1333910

Wang, Y., Kim, E. S., Dedrick, R., Ferron, J., & Tan, T. X. (2017). A multilevel bifactor approach to construct validation of the mixed-format Students Confident in Mathematics Scale. *Educational and Psychological Measurement*, *78*(2), 253-271. https://doi.org/10.1177/0013164417690858

Wang, Y., Rodriguez de Gil, P., Chen, Y-H., Kromrey, J. D., Kim, E. S., Nguyen, D. T., Pham, T. V., & Romano, J. (2017). Comparing the performance of approaches for testing the Homogeneity of Variance assumption in one-factor ANOVA models. *Educational and Psychological Measurement, 77*(2), 305-329. https://doi.org/10.1177/0013164416645162

Kim, E. S., Cao, C., **Wang, Y.**, & Nguyen, D. T. (2017). Measurement invariance testing with many groups: A comparison of five approaches. *Structural Equation Modeling: A Multidisciplinary Journal, 24*(4), 524-544. https://doi.org/10.1080/10705511.2017.1304822

Kim, E. S., & **Wang, Y.** (2017). Class enumeration and parameter recovery of growth mixture

modeling and second-order growth mixture modeling in the presence of measurement noninvariance. *Frontiers in Psychology,* 8:1499. https://doi.org/10.3389/fpsyg.2017.01499

Kim, E. S., **Wang, Y.**, & Kiefer, S. (2017). Cross-level group measurement invariance when groups are at different levels of multilevel data. *Educational and Psychological Measurement, 78*(6), 973-997. https://doi.org/10.1177/0013164417739062

Li, I., Chen, Y-H., **Wang, Y.**, Rodriguez de Gil, P., Pham, T. V., Nguyen, D. T., . . . Kromrey, J. D. (2017). ANOVA_HOV: A SAS macro for testing homogeneity of variance in one-factor ANOVA models. *Journal of Modern Applied Statistical Methods, 16*(2), 506-539. https://doi.org/10.22237/jmasm/1509496080

St. John Walsh, A., Wesley, K. L., Tan, S. Y., Lynn, C., O'Leary, K., **Wang, Y.**, … Rodriguez, C. A. (2017). Screening for depression among youth with HIV in an integrated care setting. *AIDS Care, 29*(7), 851-857. https://doi.org/10.1080/09540121.2017.1281878 (my contribution: data analysis and write-up of Method and Results)

Tan, T. X., **Wang, Y.**, & Ruggerio, A. (2017). Childhood adversity and children's academic functioning: Role of parenting stress and neighborhood support. *Journal of Child and Family Studies, 26*(10), 2742-2752. https://doi.org/10.1007/s10826-017-0775-8

Kim, E. S., Joo, S-H., Lee, P., **Wang, Y.**, & Stark, S. (2016). Measurement invariance testing across between-level latent classes using multilevel factor mixture modeling. *Structural Equation Modeling: A Multidisciplinary Journal, 23*(6), 870-887. https://doi.org/10.1080/10705511.2016.1196108

Book Chapters/Encyclopedia Entries (*n* = 2)

Chen, Y-H., **Wang, Y.**, & Kromrey, J. D. (2018). Levene's homogeneity of variance test. In B. Frey (Ed.), The SAGE Encyclopedia of Educational Research, Measurement, and Evaluation. Thousand Oaks, CA: SAS Publications Inc. doi: 10.4135/9781506326139.n392

Ferron, J., **Wang, Y.**, Dedrick, R., Kim, E. S., Yi, Z., & Yin, Y. (in press). Reporting results from multilevel modeling analyses. In A. O'Connell, D. B. McCoach, & B. Bell (Eds.), *Multilevel analysis of educational data*.

Conference Proceedings (*n* = 4)

The following conference proceedings are papers that were presented at professional conferences, published in the online repository, and can be cited.

Wang, Y., Joo, S-H., Rodriguez de Gil, P., Kromrey, J. D., Rheta E. L., Kim, E. S., Montgomery, J., Lee, R., Cao, C. H., & Ashford, S. (2015 September). *An empirical comparison of multiple imputation approaches for treating missing data in observational*

studies. Paper presented at The SouthEast SAS Users Group (SESUG), Savannah, USA. Retrieved from https://analytics.ncsu.edu/sesug/2015/SD-177.pdf

Wang, Y., Chen, Y-H., & Li, I., & Cao, C. H. (2015 September). *Can fit indices yielded from the SAS GLIMMIX procedure select the accurate Q-matrix?* Paper presented at The SouthEast SAS Users Group (SESUG), Savannah, USA. Retrieved from http://analytics.ncsu.edu/sesug/2015/SD-179.pdf

Montgomery, J., Joo, S-H., Kellermann, A., Kromrey, J. D., Nguyen, D. T., Rodriguez de Gil, P., & **Wang, Y.** (2015 September). *High performance procedures in SAS 9.4: Comparing performance of HP and legacy procedures.* Paper presented at The SouthEast SAS Users Group (SESUG), Savannah, USA. Retrieved from http://analytics.ncsu.edu/sesug/2015/SD-180.pdf

Cao, C. H., **Wang, Y.,** Chen, Y-H., & Li, I. (2014 March). *Parameter estimation of cognitive attributes using the crossed random-effects linear logistic test model with PROC GLIMMIX*. Paper presented at SAS Global Forum, Washington, D.C., USA. Retrieved from http://support.sas.com/resources/papers/proceedings14/1766-2014.pdf

Manuscripts Under Revision/Review (*n* = 9)

Wang, Y., Cao, C., & Kim, E. (revise and resubmit). Covariate inclusion in factor mixture modeling: Evaluating one-step and three-step approaches under model misspecification and overfitting. *Behavior Research Methods.*

Lee, C., & **Wang, Y.** (revise and resubmit). Typology of cybercrime victimization in Europe: A multilevel latent class analysis. *Crime & Delinquency.*

Wang, Y., Xu, T., & Shen, J. (under review). Incorporating Machine Learning into Factor Mixture Modeling: Identification of Covariate Interactions to Explain Population Heterogeneity. *Methodology.*

Alamri, A., **Wang, Y.**, & Kim, E. S. (under review). Examining source of measurement noninvariance in multilevel CFA using multilevel MIMIC modeling: A simulation study. *European Educational Research Journal.*

Chen, Y.-H., Yi, Z., **Wang, Y.**, & Thompson, D. R. (under review). Multilevel structural equation modeling to attribute hierarchies of the van Hiele model. *Journal of Psychoeducational Assessment*.

Geraci, L., Kurpad, N., Tirso, R., Gray, K. N., & **Wang, Y.** (under review). Metacognitive errors in the classroom: The role of variability of past performance on exam prediction. *Metacognition and Learning*.

Ho, I., **Wang, Y.**, & Winstead, A. (under review). Experiences of race-based discrimination among Asian Americans: A latent class analysis. *Race and Justice*.

Tan, T. X., & **Wang, Y.** (under review). Maternal education, home environment and children's academic performance: Longitudinal results. *Journal of Child and Family Studies.*

Zhang, F., **Wang, Y.**, & McCabe, A. (under review). Semantic use of conjunctions in the personal narratives of Mandarin-speaking children aged three to six years. *Early Childhood Education Journal.*

WORKSHOPS AND INVITED TALKS

Wang, Y. (2021 October*). Growth Mixture Modeling*. PSYC.6400 Theories of Change in Applied Psychology. University of Massachusetts, Lowell: Lowell, MA.

Wang, Y. (2019 November*). Latent Growth Modeling & Growth Mixture Modeling*. PUBH.6890 Advanced Regression Modeling. University of Massachusetts, Lowell: Lowell, MA.

Wang, Y. (2018 October). *Modeling Change over Time.* PSYC.6400 Theories of Change in Applied Psychology. University of Massachusetts, Lowell: Lowell, MA.

Wang, Y. (2018 October). *Evaluating Reliability and Validity in Survey Instruments.* Psychology Department Colloquia. University of Massachusetts, Lowell: Lowell, MA.

REFERRED AND INVITED CONFERENCE PRESENTATIONS (*n* = 29)

* indicates graduate student co-author.

Wang, Y. (2022 April). *Incorporating machine learning into factor mixture modeling: identification of covariate interactions to explain population heterogeneity*. Paper presented in an invited session for Division D Mini-Grant Awardees at the annual meeting of American Educational Research Association.

*Karaca, M., Geraci, L., & **Wang, Y.** (2022 April). *Do older adults remember more positive memories when they feel older than their chronological age?* Paper presented at the 2022 Cognitive Aging Conference.

Cao, C., **Wang, Y.**, & Kim, E. (2022 April). *Multilevel factor mixture modeling: illustrations for multilevel constructs*. Paper presented at the annual meeting of American Educational Research Association.

Ramlackhan, K. & **Wang, Y.** (2022 January). *Impact of school leadership on student achievement: An equity and social justice framed analysis*. Paper presented virtually at the annual convention of the International Congress for School Effectiveness and Improvement.

Kim, E., Cao, C., *Liu, S., & **Wang, Y.** (2021 November). *Testing measurement invariance over time in intensive longitudinal data: Demonstration of four approaches*. Paper presented at the Florida Educational Research Association.

*****Armagan, M., Ho, I., & **Wang, Y.** (2021 August). *Perceptions about refugees and other out-group members in the US: A Latent Class Analysis*. Poster presented at the American Psychological Association (APA).

Wang, Y., Hsu, H.-Y., & Kim, E. (2021 April). *Investigating impact of covariate inclusion on sample size requirements of factor mixture modeling*. Paper presented at the annual meeting of American Educational Research Association (AERA).

Wang, Y., Cao, C., & Kim, E. (2021 April). *Evaluating performance of factor mixture modeling and MIMIC in measurement invariance testing with multiple covariates*. Paper presented at the annual meeting of American Educational Research Association (AERA).

*Sutherland, K. T., Smalarz, L., Wilford, M. M., **Wang, Y.,** & Pascale, M. (2021 March). *Does knowledge of coercive plea offers reduce the tendency to infer guilt from a guilty plea?* Poster accepted for presentation at the meeting of the American Psychology-Law Society.

Wang, Y., Kim, E. S., Falcón, L. M., & Tucker, K. L. (2020 June). *Unequal and individually-varying time intervals in latent change score model: A demonstration of five approaches*. Paper accepted for presentation at the Modern Modeling Methods Conference, Storrs, CT (conference cancelled due to the impact of the COVID-19 pandemic).

Wang, Y., & Gonzales, J. (2020 June). *Measurement invariance testing using factor mixture modeling and structural equation model trees: A Monte Carlo simulation study*. Paper accepted for presentation at the Modern Modeling Methods Conference, Storrs, CT (conference cancelled due to the impact of the COVID-19 pandemic).

Wang, Y., Kim, E. S., & Hsu, H.-Y. (2020 June). *Sample size requirements in factor mixture modeling: A Monte Carlo simulation study*. Paper accepted for presentation at the Modern Modeling Methods Conference, Storrs, CT (conference cancelled due to the impact of the COVID-19 pandemic).

Wang, Y., Baek, E., & Ferron, J. M. (2019 August). *Evaluation of a latent growth modeling approach to interrupted time series data with small samples.* Paper presented at the Annual Meeting of the American Psychological Association (APA), Chicago, IL.

Gonzales, J. E., & **Wang, Y.** (2018 November). *The identification and modeling of unobserved sample heterogeneity.* Symposium presented at the Annual Meeting of the New England Psychological Association (NEPA), Worcester, MA.

Wang, Y. & Kim, E. S. (2018 April). *Covariates in factor mixture modeling: Investigating measurement invariance across unobserved groups*. Poster presented at American Educational Research Association (AERA), New York, USA.

Wang, Y., Pham, T. V., Nguyen, D. T., Kim, E. S., Kromrey, J. D., & Chen, Y-H. (2017 April). *Evaluating the efficacy of conditional analysis of variance under non-normality and*

heterogeneity. Paper presented at American Educational Research Association (AERA), San Antonio, USA.

Wang, Y., & Kim, E. S. (2016 April). *Evaluating model fit and structural coefficient bias: A Bayesian approach to multilevel bifactor model misspecification*. Paper presented at American Educational Research Association (AERA), Washington, D.C., USA.

Kim, E. S., Cao, C., **Wang, Y.**, & Nguyen, D. T. (2016 April). *Testing measurement invariance with many groups: An empirical comparison of five approaches.* Poster presented at American Educational Research Association (AERA), Washington, D.C.

Nguyen, D. T., Kim, E. S., **Wang, Y.**, Pham, T. V., Kromrey, J., & Chen, Y-H. (2016 April). *Testing mean equality under heterogeneity and non-normality: An empirical comparison of tests for one-factor ANOVA models*. Paper presented at American Educational Research Association (AERA), Washington, D.C., USA.

Wang, Y., Li, I., & Kim, E. S. (2015 November). *A cross-cultural study of students' confidence in mathematics using a modified multiple-indicators multiple-causes approach on TIMSS 2011 data.* Paper presented at Florida Educational Research Association (FERA), Altamonte Springs, USA.

Eversole, O., & **Wang, Y.** (2015 November). *Self-Perceptions of RtI Skills Survey: Comparing item reduction and parceling models for instrument validation.* Paper presented at Florida Educational Research Association (FERA), Altamonte Springs, USA.

Wang, Y., & Kim, E. S. (2015 August). *Evaluation of model fit indices and structural coefficient bias with bifactor model misspecification.* Paper presented at Joint Statistical Meetings (JSM), Seattle, USA.

Goodwin, M., Morgan, J., **Wang, Y.**, & King, M. (2015 June). *Implementation of course-based learning communities and living learning communities along with the development of a simple Python program for measuring retention*. Paper presented at American Society for Engineering Education, Seattle, USA.

Wang, Y., Bellara, A. P., Pham, T., Nguyen, D. T., Rodriguez de Gil, P., Chen, Y-H., Holmes, H., Hicks, T., Li, I., Kim, E. S., Romano, J., & Kromrey, J. D. (2015 April). *Comparing the performance of approaches for testing the homogeneity of variance assumption in one-factor ANOVA models.* Paper presented at American Educational Research Association (AERA), Chicago, USA.

Montgomery, J., Kim, E. S., Kromrey, J. D., Lanehart, R. E., Rodriguez de Gil, P., Saddler, D., & **Wang, Y.** (2014 August). *Covariate balance in PS (propensity score) models: Much ado about nothing?* Paper presented at Joint Statistical Meetings (JSM), Boston, USA.

Li, J., White, C. E., & **Wang, Y.** (2014 April). *Urban adolescents' stories about new technologies and their applications for literacy instruction and learning*. Paper presented at American Educational Research Association (AERA), Philadelphia, USA.

Li, I., Chen, Y-H., Shaunessy-Dedrick, E., Cao, C. H., & **Wang, Y.** (2013 November). *A comparison of IRT and GDM methods for validating a Q-matrix: An empirical study of a reading comprehension test.* Paper presented at Florida Educational Research Association (FERA), Gainesville, USA.

Cao, C. H., Chen, Y-H., MacDonald, G., Li, I., & **Wang, Y.** (2013 November). *Parameter Recovery of the Crossed Random-Effects Linear Logistic Test Model: An Empirical Investigation of Accuracy and Precision.* Paper presented at Florida Educational Research Association (FERA), Gainesville, USA.

Li, J., & **Wang, Y.** (2013 July). *Digital technologies, teen culture and literacy instruction: Adolescent students' perspectives.* Paper presented at the 4th WorldCALL (Computer Assisted Language Learning) conference, Glasgow, U.K.

AWARDS AND CERTIFICATES

Teaching Excellence Award, University of Massachusetts Lowell, 2022
Leslie C. Robbins Dean's Excellence Award, University of South Florida, 2013-2016
Conference Presentation Travel Grant, the SouthEast SAS Users Group (SESUG), 2015
University Graduate Fellowship Award, University of South Florida, 2013
Dean's Scholarship, Boston College, 2011
National Scholarship, Xiamen University, 2008

TEACHING

During my years at UML, I have maintained a 2-2 teaching load and the average rating of student evaluations ranged from 4.65 to 4.93 (with 5 being the highest possible rating) across four academic years. I have taught two courses that are counted towards the teaching load: Research II: Statistics, which is a required course for undergraduate students majoring in Psychology (capped at 25), and Multilevel Modeling, which is a new course I proposed and developed for doctoral students from scratch. At its initial offering in Spring 2021, this course has attracted 12 students from diverse disciplines, including psychology, criminology and justice studies, education, nursing, and public health.

PSYC.3690 Research II: Statistics
Fall 2018 (2 sections, 42 students, evaluation 4.65/5)
Spring 2019 (2 sections, 49 students, evaluation 4.86/5)
Spring 2020 (2 sections, 39 students, evaluation not conducted due to the COVID-19 academic policy change)
Fall 2020 (2 sections, 52 students, evaluation 4.83/5)
Spring 2021 (1 section, 22 students, evaluation 4.93/5)
Spring 2022 (2 sections, 40 students, evaluation not available yet)

PSYC.4860 Community Service Learning
Spring 2019 (1 student, 3 credits, evaluation not conducted for service learning courses)
Spring 2020 (1 student, 3 credits, evaluation not conducted for service learning courses)

PSYC.7030 Selected Topics in Applied Psychology & Prevention Science (APPS): Multilevel Modeling
Spring 2021 (12 students, 3 credits, evaluation 4.89/5)

PSYC.6930 Directed Study in APPS
Spring 2021 (1 student, 3 credits, evaluation not conducted for Directed Studies)

MENTORING

Doctoral Students

Primary and Secondary Advisor
2021— Alexandria Winstead, Secondary Advisor
2021— Tonghui Xu, Secondary Advisor

Qualifying Paper (QP) Committee Member
2021 David Schena
2020 James Kilgo
2020 Kelly Sutherland
2019—2021 Nayantara Kurpad
2019—2021 Tsvetina Kamenova
2019—2020 Merve Armagan
2018—2019 Anastasiya Tsoy

Dissertation Committee Member
2021— Nayantara Kurpad
2021— Kelly Sutherland
2020— Meltem Karaca
2020 Christina Nikitopoulos
2019—2020 Charlotte Wilinsky

Master Students

Master's Thesis Committee Member
2022— Samuel NesinPerna

Undergraduate Students

Senior Seminar Project Advisor (Math Majors)
2021— Genevieve Moore

Honors Thesis Advisor
2022— Genevieve Moore
2020—2021 Julia McGuire, co-advisor

SERVICE ACTIVITIES

Profession

Editorial Board

2022— Editorial advisory board member, *School Psychology Review*
2020— Consulting editor, *Behavior Research Methods*

Ad Hoc Review

2021— *Urban Education*
2021— *PLOS ONE*
2021— *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*
2020— *Sociological Methods and Research*
2020— *Frontiers in Psychology*
2020— *BMC Public Health*
2018—2020 *Behavior Research Methods*
2018— *Structural Equation Modeling: A Multidisciplinary Journal*
2017— *Educational and Psychological Measurement*
2017— *Journal of Psychoeducational Assessment*
2015— *American Educational Research Association Conference*
2014 *American Evaluation Association Conference*

Grant Proposal Review

2021 Reviewer, virtual panel for the *National Science Foundation*, Directorate for Engineering, Engineering Education and Centers
- Reviewed six grant proposals
- Discussed and rated 12 proposals in the two-day panel

2020 Reviewer, virtual panel for the *National Science Foundation*, Directorate for Education & Human Resources
- Reviewed seven grant proposals
- Discussed and rated 14 proposals in the two-day panel

Professional Conferences

2022— Secretary/Treasurer, Special Interest Group – Multilevel Modeling, AERA
2022 Chair, Paper session (Methodological Considerations and Guidance for Estimating Longitudinal/Growth Models), AERA Annual Meeting
2021 Chair, Paper session (Experiment Designs of Educational Research Studies), AERA Annual Meeting
2021 Chair, Roundtable session (Advanced Structural Equation Modeling and Hierarchical Modeling at Roundtable), AERA Annual Meeting

Memberships in Professional Organizations

2014— American Educational Research Association (AERA)
- Division D: Measurement and Research Methodology
- SIG-Structural Equation Modeling
- SIG-Multilevel Modeling
- SIG-Educational Statisticians

- SIG-Systematic Reviews and Meta-Analysis

2019— American Psychological Association (APA)
- Division 5: Quantitative and Qualitative Methods

Department

2020— Member, Undergraduate Program Committee

2018— Member, Applied Psychology and Prevention Science Ph.D. Program Committee
- Sent emails requesting professional organizations to post advertisements for the program
- Disseminated advertisements for the program to colleagues and potential applicants
- Gave a talk to APPS students regarding the preparation of CV, research, and teaching statements for job searches in academia
- Developed an advanced statistical course on multilevel modeling at the request of the committee

College

2020— Faculty advisor, FAHSS Ph.D. Student Advisory Board
- Met board members (6 doctoral students from the three Ph.D. programs under FAHSS) to discuss and help coordinate events

University

2021— Core (and founding) faculty member, Center for Health Statistics
- Discussed the purpose and scope of the center
- Edited the application document for the center
- Initiate and co-organize (with Hsien-Yuan Hsu) a Quantitative Series that consists of monthly presentations on advanced quantitative methodology

2021— Member, Faculty Senate, University of Massachusetts Lowell

2021— Associate member, Center for Program Evaluation (CPE)
- Participated in CPE sponsored events such as Brown Bags and Writer's Blocks

2020— Member, Committee on Interdisciplinary Offerings in Data Science/Analytics/Computation
- Attended meetings to discuss interdisciplinary course offerings

2018— Member, Center for Population Health (CPH)
- Participated in CPH meetings to provide consultation on research projects
- Collaborated with center members on grants and papers

Community

2019— WOC (without compensation) appointee, VA Medical Center at Bedford MA
- Assisted with Dr. Hong Yu (UML, Computer Science) on research projects including study design, data analysis, and manuscript reviewing/writing