

LAUREN ALEXA TRICHTINGER

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EDUCATION

- Ph.D., Quantitative Psychology** 2022
University of Notre Dame
 Dissertation: Missing data methods for dynamic factor analysis
 Advisor: *Dr. Guangjian Zhang*
- M.A., Quantitative Psychology** 2020
University of Notre Dame
 Thesis: Bootstrap methods for testing P-technique factor analysis
 Advisor: *Dr. Guangjian Zhang*
- B.A., Mathematics and Psychology** 2016
Chatham University
 Thesis: Smiles, rapport, and learning gains during tutoring sessions
 Advisors: *Dr. Aaron Trout and Dr. Monica Riordan*

ACADEMIC APPOINTMENTS

- Assistant Professor of Statistics/Data Science, Simmons University 2021-present
Division of Mathematics, Computing, and Statistics
- Doctoral Student, University of Notre Dame 2016-2021
Quantitative Psychology

PUBLICATIONS

- Liu, Q., Joiner, R. J., **Trichtinger, L. A.**, Tran, T., & Cole, D. A. (2023) Dissecting the depressed mood criterion in adult depression: The heterogeneity of mood disturbances in major depressive episodes. *Journal of Affective Disorders*. 323, 392–399. doi: 10.1016/j.jad.2022.11.047
- Zhang, G., Hattori, M., **Trichtinger, L. A.** (2022). Rotating factors to simplify their structural paths. *Psychometrika*. doi: 10.1007/s11336-022-09877-3
- Zhang, G., **Trichtinger, L. A.**, Lee, D. & Jiang, G. (2022) PolychoricRM: An efficient R function for estimating polychoric correlations and their asymptotic covariance matrix. *Structural Equation Modeling Structural Equation Modeling: A Multidisciplinary Journal*, 29:2, 310-320, DOI: 10.1080/10705511.2021.1929996
- Trichtinger, L. A.** & Zhang, G. (2021). Testing P-technique factor analysis with non-normal time series. *Multivariate Behavioral Research*, DOI: 10.1080/00273171.2021.1919047.
- Trichtinger, L.** & Zhang, G. (2021). A Bootstrap Procedure for Testing P-technique Factor Analysis. *Multivariate Behavioral Research*, 56:1, 152, DOI: 10.1080/00273171.2020.1852908 (Abstract).
- Trichtinger, L. A.** & Zhang, G. (2021). Quantifying the model error in P-technique factor analysis. *Multivariate Behavioral Research*, doi: 10.1080/00273171.2020.1717414
- Zhang, G., Hattori, M., **Trichtinger, L. A.**, & Wang, X. (2019). Target Rotation with both factor loadings and factor correlations. *Psychological Methods*, 24(3), 390-402. doi: 10.1037/met0000198
- Zhang, G., Preacher, K., Jiang, G., Hattori, M., & **Trichtinger, L. A.** (2018). A sandwich standard error estimator for exploratory factor analysis with nonnormal data and imperfect models. *Applied Psychological Measurement*, 43(5), 360-373. doi: 10.1177/0146621618798669
- Riordan, M. A. & **Trichtinger, L. A.** (2017). Overconfidence at the Keyboard: Confidence and Accuracy in Interpreting Affect in E-Mail Exchanges. *Human Communication Research*, 43(1), 1–24. doi: 10.1111/hcre.12093

TEACHING EXPERIENCE

Simmons University

STAT 118: Introductory Statistics — *Instructor* Fall 2021[23,23], Spring 2022[24], Fall 2022[24],
 Spring 2023[25, 30], Fall 2023[28, 29], Spring 2024[28, 30]
 CS 347: Applied Data Science — *Instructor* Spring 2022[7]
 STAT227: Intermediate Statistics: Design & Analysis — *Instructor* Fall 2022[14,7] Fall 2023[28]
 STAT228: Introduction to Data Science — *Instructor* Spring 2024 [25]
 STAT391-01: Special Topics Stats/Biostats — *Instructor* Spring 2023[9]

University of Notre Dame

Quantitative Methods in Psychology II — *Lab Instructor* Spring 2019
 Quantitative Methods in Psychology I — *Lab Instructor* Fall 2018
 Experimental Psychology II: Research Methods — *Lab Instructor* Fall 2019
 Experimental Psychology I: Statistics — *Lab Instructor* Fall 2017

Chatham University

Statistics and Research Design — *Supplemental Instructor* Fall 2015/Spring 2016

TUTORING EXPERIENCE

General Psychology — *Tutor* Fall 2013-Spring 2016
Chatham University
 Foundations of Behavioral Research — *Tutor* Fall 2014-Spring 2016
Chatham University
 Abnormal Psychology — *Tutor* Fall 2015
Chatham University
 Health Psychology — *Tutor* Fall 2015
Chatham University
 Psychology of Learning — *Tutor* Fall 2015
Chatham University

SOFTWARE DEVELOPMENT

Zhang, G., **Trichtinger, L.**, & Lee, D. (2020). Turbofuns. [[R package on GitHub](#)]
 Zhang, G., Jiang, G., Hattori, M. & **Trichtinger, L.** (2019). EFAutilities: Utility functions for
 exploratory factor analysis. [[R package on CRAN](#)]
Over 22,000 downloads

AWARDS & CERTIFICATES

Advanced Teaching Scholar Certificate 2020
 Midwestern Association of Graduate Schools Excellence in Teaching Award Honorable Mention 2020
 Graduate Student Union Outstanding Graduate Teaching Assistant Award 2019
 Psychology Department Excellence in Graduate Teaching Assistant Award 2019
 Striving for Excellence in College and University Teaching Certificate 2018
 National Science Foundation Graduate Research Fellowship Program Honorable Mention 2018
 Outstanding Graduate Student Teaching Award 2018
 STEMentorship Certificate 2017- 2019
 Montgomery Psychology Award 2016

World Ready Women Scholarship	2012-2016
Girl Scout Merit Scholarship	2012-2016
Trustees Merit Scholarship	2012-2016
Girl Scout Gold Award	2010

PRESENTATIONS

- Stanton, A.M., Kirakosian, N., Kabel, K., **Trichtinger, L.**, & Liu, Q. (2024, Arpil) *Intersecting factors associated with increased risk for suicidal ideation and behaviors among transgender and gender diverse adults: The critical roles of distress, healthcare stereotype threat, age, and income.* Poster presentation, Annual meeting of the Anxiety and Depression Association of America (ADAA), Boston, MA.
- Trichtinger, L.** & Zhang, G. (2023, August) *Missing data with exploratory dynamic factor analysis.* Poster presentation, the 131st annual convention of the American Psychological Association
- Trichtinger, L.** (2021, November). *Factor Analysis for Intensive Longitudinal Data.* Invited Talk, University of California, Los Angeles.
- Zhang, G., **Trichtinger, L.**, Lee, D., & Jiang, G (2020, October). *PolychoricRM: A Computationally Efficient R Function for Estimating Polychoric Correlations and Their Asymptotic Covariance Matrix.* Paper presentation, the 60th annual meeting of the Society of Multivariate Experimental Psychology, Virtual Meeting.
- Trichtinger, L.** & Zhang, G.(2020, October) *A Bootstrap Procedure for Testing P-technique Factor Analysis.* Poster presentation, 18th Annual Society of Multivariate Experimental Psychology (SMEP) Graduate Student Conference. Virtual.
- Trichtinger, L.** & Zhang, G.(2020, July). *Testing P-technique factor analysis with non-normal time series.* Paper presentation, the 84th Annual Meeting of the Psychometric Society (IMPS). College Park, MD.
- Zhang, G., Hattori, M., **Trichtinger, L.** & Wang, X. (2018, October). *Extending Target Rotation to Include Factor Correlations.* Paper presentation, the 58th annual meeting of the Society of Multivariate Experimental Psychology. Albuquerque, NM.
- Trichtinger, L.** & Zhang, G.(2018, August). *Factor Retention Methods in P-Technique Factor Analysis.* Poster presentation, the 126th annual convention of the American Psychological Association. San Francisco, CA.
- Zhang, G., Hattori, M., **Trichtinger, L.** & Wang, X. (2018, October). *Extending Target Rotation to Include Factor Correlations.* Paper presentation, the 58th annual meeting of the Society of Multivariate Experimental Psychology. Albuquerque, NM.
- Zhang, G., Jiang, G., Hattori, M. & **Trichtinger, L.** (2016, October). *An R package EFAutilities: A collection of utility functions for exploratory factor analysis.* Paper presentation, the 56th annual meeting of the Society of Multivariate Experimental Psychology. Richmond, VA.
- Riordan, M. A. & **Trichtinger, L.** (November, 2015). *Relational and contextual effects on the confidence and accuracy of interpreting affect in email exchanges.* Presented at the 101st annual meeting of the National Communication Association in Las Vegas, Nevada.
- Kovaz, D. M., Riordan, M. A., **Trichtinger, L.**, & Kreuz, R. J. (November, 2014). *The effects of cooperation and relationship status on alignment in conversation.* Presented at the 55th annual meeting of the Psychonomic Society in Long Beach, California.

QUANTITATIVE SEMINAR PRESENTATIONS

- Trichtinger, L.** & Zhang, G.(2020, September). *Statistical analysis of intensive longitudinal data.* Presented at Grad Seminar: Quantitative Study. Notre Dame. IN.
- Trichtinger, L.** & Zhang, G.(2019, November). *Bootstrap methods for testing P-technique factor analysis.* Presented at Grad Seminar: Quantitative Study. Notre Dame. IN.

- Trichtinger, L.** & Zhang, G.(2018, September). *Quantifying the model error in P-technique factor analysis*. Presented at Grad Seminar: Quantitative Study. Notre Dame. IN.
- Trichtinger, L.** & Zhang, G.(2018, March). *Exploratory factor analysis and cross-validation*. Presented at Grad Seminar: Quantitative Study. Notre Dame. IN.
- Trichtinger, L.** & Zhang, G.(2017, April). *Computing Test Statistics for P-Technique Factor Analysis*. Presented at Grad Seminar: Quantitative Study. Notre Dame. IN.

TEACHING WORKSHOPS ATTENDED

Facilitating Discussion in Social Sciences and Humanities	January 2020
Flipped Classroom	October 2019
Using Rubrics to Assess Student Work	September 2019
Transparent Assignment Design	September 2019
Building Better Bookends: Making the Most of the First & Last Days of Class	November 2018
Alternative/Flipped Finals Beyond Blue Books & Bubble Sheet	November 2018
Teaching in Flexible Spaces	September 2018
Gathering Early Semester Student Feedback	February 2018
Writing Effective Multiple Choice Questions	January 2018
Helping Students in Distress	January 2018

SERVICE ACTIVITIES

University Service

PLAN advisor	Fall 2022-Present
Administrative Board Board Member	Spring 2023-Present
Statistical Consultant for Faculty	Fall 2023, Spring 2024
Panelist for Scholars Panel on The Power of Interdisciplinary Research	Spring 2024
Faculty Panel for Simmons Open House	Fall 2023
SURPASs Judge	Spring 2023
Mock Class Instructor, Simmons Accepted Student Day	Spring 2022, Spring 2023

Department Service

STAT118 Committee Head	Fall 2023-Present
STAT118 Committee Member	Fall 2021-Present
Data Science Committee	Fall 2023-Present
Mathematical Sciences Committee	Fall 2023
Statistics and Data Science Job Search Committee	Fall 2022, Spring 2023
Mathematics Job Search Committee	Fall 2022, Spring 2023

Professional Service

Reviewer, Structural Equation Modeling	Spring 2022
Reviewer, Behavior Research Methods	Fall 2021
Reviewer, Society of Multivariate Experimental Psychology Conference	Fall 2021
USPROC Judge	Spring 2023, Fall 2023
Graduate Peer Mentor, Diversity, Equity and Inclusion Committee	Fall 2020 STEM Mentor,
Association for Women in Science	Fall 2016 – 2021
Probability Workshop Leader, Expanding Your Horizon Conference	Spring 2017, 2018, 2019
Northern Indiana Regional Science and Engineering Fair Judge	Spring 2017, 2018, 2019, 2020

TECHNICAL SKILLS

Computing/Programming — R, SPSS Syntax, CEFA, DyFA, Git, Unix/CLI, LaTeX, Lucidchart

NATIONAL PROFESSIONAL MEMBERSHIPS

Psychometric Society, American Psychological Association, American Statistical Association,
Association for Psychological Science