# Matthew S. Fritz, Ph.D.

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#### **EDUCATION**

Ph.D.	Quantitative Psychology	Arizona State University Tempe, AZ	2007
Certificate	Applied Statistics	Arizona State University Tempe, AZ	2006
M.A.	Quantitative Psychology	Arizona State University Tempe, AZ	2005
H.B.S.	Psychology, cum laude Minors – Statistics, Actuarial Scienc	Oregon State University e Corvallis, OR	2002

#### **PROFESSIONAL EXPERIENCE**

Research Ambassador/ Fellow – Established Scientist	NCSES Research Ambassadors Program National Center for Science and Engineering Statistics National Science Foundation, Alexandria, VA	2020 - present
Associate Professor of Practice	Department of Educational Psychology University of Nebraska – Lincoln, Lincoln, NE	2020 – present
Director	Nebraska Evaluation and Research Center University of Nebraska – Lincoln, Lincoln, NE	2016 - 2020
Assistant Professor	Department of Educational Psychology University of Nebraska – Lincoln, Lincoln, NE	2013 - 2020
Assistant Professor	Department of Psychology Virginia Polytechnic Institute and State University, Blacksburg, VA	2008 - 2013

### PROFESSIONAL MEMBERSHIPS/AFFILIATIONS

## <u>CURRENT</u>

American Psychological Association American Psychological Association – Division 2: Society for the Teaching of Psychology American Psychological Association – Division 5: Quantitative and Qualitative Methods National Prevention Science Coalition to Improve Lives Nebraska Academy for Methodology, Analytics, and Psychometrics – Core Faculty Nebraska Center for Research on Children, Youth, Families, and Schools – Affiliated Faculty Prevention Science Methodology Group Society for Prevention Research University of Nebraska – Lincoln LGBTQA Safe Space/Ally

## PAST/PERIODIC

Association for Psychological Science American Statistical Association Midwestern Psychological Association Psychometric Society Society for Personality and Social Psychology Virginia Polytechnic Institute and State University LGBTQA Safe Zone/Ally Western Psychological Association

# **Research Grants**

### <u>FUNDED – IN PROGRESS</u>

 Pugliese, C. (Principal Investigator), Kenworthy, L., Anthony, L., Mikulich-Gilbertson, S., Maddox, B., Verbalis, A., Fritz, M. S., & Mandell, D. (2021-2024). *A hybrid effectiveness-implementation trial of a school based executive function treatment for transition age youth with autism* (Project No. 1R01MH124772-01). National Institute of Mental Health. (Total Budget: \$2,542,924). <u>https://reporter.nih.gov/ project-details/10099981</u>

### FUNDED - COMPLETED

- 5.) Gervais, S. (Principal Investigator), DiLillo, D., Fritz, M. S., & Dodd, M. (2018-2022). Integrating Alcohol Myopia and Objectification to Understand Sexual Assault. (Project No. 5R01AA025090-03). National Institute on Alcohol Abuse and Alcoholism. (Total Direct Costs: \$1,097,073) <u>https://reporter.nih.gov/project-details/9936108</u>
- Fritz, M. S. (Lead Investigator Subcontract). (2015-2020). Subcontract on MacKinnon, D. P. (Principal Investigator). *Estimating Mediation Effects in Prevention Research* (Project No. 5R37DA009757-18). National Institute on Drug Abuse. (Subcontract Costs: \$106,475, Total Direct Costs: \$1,195,944)

https://reporter.nih.gov/project-details/9697395

- 3.) Fritz, M. S. (Principal Investigator). (2014-2015). *Effect of Temporal Design on Trajectory Selection in Latent Variable Growth Models*. Layman Award – Office of Research and Economic Development, University of Nebraska – Lincoln. (Total Direct Costs: \$10,000)
- 2.) Fritz, M. S. (Lead Investigator Subcontract). (2010-2015). Subcontract on MacKinnon, D. P. (Principal Investigator) *Estimating Mediation Effects in Prevention Research* (Project No. 5R01DA009757-13). National Institute on Drug Abuse. (Subcontract Costs: \$76,377, Total Direct Costs: \$1,214,279) <u>https://reporter.nih.gov/project-details/8488418</u>
- Fritz, M. S. (Investigator). (2009-2014). Subcontract on Walker, D., & Stephens, R. (Principal Investigators). *Reaching and Motivating Change in Teen Marijuana Smokers* (Project No. 5R01DA014296-13). National Institute on Drug Abuse. (Total Direct Costs: \$2,229,670) <u>https://reporter.nih.gov/project-details/8625289</u>

## **PUBLICATIONS**

### PEER-REVIEWED JOURNAL ARTICLES

- Chen, D., & Fritz, M. S. (2021). Comparing alternative corrections for bias in the biascorrected bootstrap test of mediation. *Evaluation & the Health Professions*, 1-12. DOI: 10.1177/01632787211024356
- Nord, J., Bovaird, J. A., & Fritz, M. S. (2020). Latent interaction modeling with planned missing data designs. *Structural Equation Modeling*, 27, 602-612.
  DOI: 10.1080/10705511.2019.1692306 (Published online Dec. 11, 2019)
- 14.) Prokasky, A., Fritz, M. S., Molfese, V., & Bates, J. E. (2019). Night-to-night variability in the bedtime routine predicts quality of sleep in toddlers. *Early Childhood Research Quarterly*, *49*, 18-27. DOI: 10.1016/j.ecresq.2019.05.004
- Halliburton, A. E., & Fritz, M. S. (2018). Health beliefs as a key determinant of intent to use anabolic-androgenic steroids (AAS) among high-school football players: Implications for prevention. *International Journal of Adolescence and Youth*, 23, 269-280. DOI: 10.1080/02673843.2017.1344928
- 12.) Fritz, M. S., Kenny, D. A., & MacKinnon, D. P. (2016). The combined effects of measurement error and omitted confounders in the single-mediator model. *Multivariate Behavioral Research*, *51*, 681-697. DOI: 10.1080/00273171.2016.1224154
- Fritz, M. S., Cox, M. G., & MacKinnon, D. P. (2015). Increasing statistical power in mediation models without increasing sample size. *Evaluation & the Health Professions*, 28, 343-366. DOI: 10.1177/0163278713514250
- 10.) Pugliese, C. E., Fritz, M. S., & White, S. W. (2015). The role of anger rumination and

ASD-linked perseveration in the experience of aggression in the general population. *Autism, 19,* 704-712. DOI: 10.1177/1362361314548731

- 9.) Mills-Smith, L., Spangler, D., Panneton, R., & Fritz, M. S. (2015). A missed opportunity for clarity: Problems in the reporting of effect size measures in infant development science. *Infancy*, *20*, 416-432. DOI: 10.1111/infa.12078
- 8.) Fritz, M. S. (2014). An exponential decay model for mediation. *Prevention Science*, *15*, 611-622. DOI: 10.1007/s11121-013-0390-x
- 7.) Fritz, M. S., Taylor, A. B., & MacKinnon, D. P. (2012). Explanation of two anomalous results in statistical mediation analysis. *Multivariate Behavioral Research*, *47*, 61-87. DOI: 10.1080/00273171.2012.640596
- 6.) Fritz, M. S., & MacKinnon, D. P. (2008). A graphical representation of the mediated effect. *Behavior Research Methods*, *40*, 55-60. DOI: 10.3758/BRM.40.1.55
- 5.) Ryan, L. J., & Fritz, M. S. (2007). Erroneous knowledge of results affects decision and memory processes on timing tasks. *Journal of Experimental Psychology: Human Perception and Performance, 33*, 1468-1482.DOI: 10.1037/0096-1523.33.6.1468
- 4.) Fritz, M. S., & MacKinnon, D. P. (2007). Required sample size to detect the mediated effect. *Psychological Science*, *18*, 233-239. DOI: 10.1111/j.1467-9280.2007.01882.x
- 3.) MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. *Annual Review of Psychology*, *58*, 593-614. DOI: 10.1146/annurev.psych.58.110405.085542
- 2.) MacKinnon, D. P., Fritz, M. S., Williams, J., & Lockwood, C. M. (2007). Distribution of the product confidence intervals for the indirect effect: Program PRODCLIN. *Behavior Research Methods*, *39*, 384-389.DOI: 10.3758/BF03193007
- 1.) Fritz, M. S., MacKinnon, D. P., Williams, J., Goldberg, L., Moe, E. L., & Elliot, D. L. (2005). Analysis of baseline by treatment interactions in a drug prevention and health promotion program for high school male athletes. *Addictive Behaviors, 30*, 1001-1005. DOI: 10.1016/j.addbeh.2004.08.030

#### PEER-REVIEWED WORKING PAPERS

- 2.) Fritz, M. S. (in press). Replicating the job importance and job satisfaction latent class analysis of the 2017 Survey of Doctorate Recipients with the 2015 and 2019 cycles (Working Paper NSF-NCSES No. 21-\*\*\*\*). National Center for Science and Engineering Statistics, National Science Foundation. https://www.nsf.gov/statistics/
- 1.) Fritz, M. S. (in press). Job satisfaction vs. job importance: A latent class analysis of the 2017 Survey of Doctorate Recipients (Working Paper NSF-NCSES No. 21-\*\*\*\*).

National Center for Science and Engineering Statistics, National Science Foundation. <u>https://www.nsf.gov/statistics/</u>

### PEER-REVIEWED BOOK CHAPTERS AND ENCYCLOPEDIA ENTRIES

- 5.) Fritz, M. S. (2020). Singletons: Re-evaluating course objectives when an introductory statistics course is a student's only statistics course. In J. L. Rodgers (Ed.), *Teaching statistics and quantitative methods into the 21<sup>st</sup> century* (pp. 87-101). New York: Taylor & Francis. ISBN: 978-1138336865
- 4.) Fritz, M. S., & Arthur, A. M. (2017). Moderator variables. *Oxford Research Encyclopedia of Psychology* (<u>http://psychology.oxfordre.com/</u>). Oxford University Press. DOI: 10.1093/acrefore/9780190236557.013.86
- Fritz, M. S., & Lester, H. F. (2016). Mediator variables. Oxford Research Encyclopedia of Psychology (<u>http://psychology.oxfordre.com/</u>). Oxford University Press. DOI: 10.1093/acrefore/9780190236557.013.19
- Krull, J., Cheong, J. W., Fritz, M. S., & MacKinnon, D. P. (2016). Moderation and mediation in interindividual longitudinal analysis. In D. Cicchetti (Ed.), *Developmental Psychopathology*, (Vol.1, 3<sup>rd</sup> ed., pp. 922-985). New York: Wiley. ISBN: 978-1118120873
- Fritz, M. S., & MacKinnon, D. P. (2012). Mediation models for developmental data. In B. Laursen, T. Little, & N. Card (Eds.), *Handbook of developmental research methods* (pp. 291 – 310). New York: Guilford. ISBN: 978-1606236093

### PEER-REVIEWED FACULTY COURSE PORTFOLIO

1.) Fritz, M. S. (2015). *Benchmark portfolio for EDPS 859 Statistical Methods – Spring 2015*. Peer Review of Teaching Project, University of Nebraska-Lincoln. Available to download at: <u>https://digitalcommons.unl.edu/prtunl/</u>

### PEER-REVIEWED BOOK REVIEWS

1.) Fritz, M. S. (2015). Review of Doing Statistical Mediation & Moderation, by Paul E. Jose. *Structural Equation Modeling*, 22, 319-322. DOI: 10.1080/10705511.2014.958045

### MANUSCRIPTS UNDER REVIEW

1.) Fritz, M. S. (2021). "Collect, acquire, analyze, report, and disseminate statistical data related to the science and engineering enterprise...": The National Center for Science and Engineering Statistics. Invited resubmission to the *WikiJournal of Science*.

#### MANUSCRIPTS UNDER REVISION

- 3.) Ledermann, T., & Fritz, M. S. (2021). *Thoughts on full versus partial mediation*. Manuscript under revision.
- 2.) Schweitzer, N. J., Salerno, J. M, Fritz, M. S., & Lovis-McMahon, D. (2021). Are we confident in verdict-confidence? A simulation study of binary x continuous hybrid DV's. Manuscript under revision.
- 1.) Cox-Martin, M. G., Fritz, M. S., & Winett, R. A. (2021). *Self-efficacy as a mediator of physical activity: A meta-analysis.* Manuscript under revision.

### MANUSCRIPTS IN PREPARATION

- 4.) Fritz, M. S., & Bray, B. C. (2021). An investigation of how job satisfaction and job importance change over time: A latent transition analysis of the Survey of Doctorate Recipients (Working Paper NSF-NCSES No. 21-\*\*\*\*). National Center for Science and Engineering Statistics, National Science Foundation. <u>https://www.nsf.gov/statistics/</u> Unpublished manuscript.
- 3.) Wheeler, L. A., & Fritz, M. S. (2021). *Mexican-origin young adult's work conditions and health: The moderating role of sociocultural context.* Unpublished manuscript.
- 2.) Fritz, M. S., Ryu, E., Chen, D., & Zhou, Y. (2021). *Recommendations for bootstrapping the mediated effect in hierarchical linear models*. Unpublished manuscript.
- 1.) Fritz, M. S. (2021). *Effect of temporal design on trajectory selection in latent variable growth curve models.* Unpublished manuscript.

#### ELECTRONIC MEDIA

1.) MacKinnon, D. P., Fritz, M. S., & Fairchild, A. F. (2008). Data sets and computer syntax. [CD-ROM]. In D.P. MacKinnon, *Introduction to statistical mediation analysis*. Newark, NJ: Lawrence Erlbaum Associates.

### DISSERTATIONS AND THESES

- 3.) Fritz, M. S. (2007). *An exponential decay model for mediation*. Doctoral Dissertation. Hayden Library Dissertation Collection, Arizona State University, Tempe, AZ.
- 2.) Fritz, M. S. (2005). *Required sample size to detect the mediated effect*. Master's Thesis. Hayden Library Thesis Collection, Arizona State University, Tempe, AZ.
- 1.) Fritz, M. S. (2002). *Effects of erroneous knowledge of results on human perception of time in an interval reproduction task.* Undergraduate Honors Thesis. University Honors College Thesis Collection, Oregon State University, Corvallis, OR.

### **PRESENTATIONS**

#### PEER-REVIEWED CONFERENCE PAPERS AND POSTERS

- 35.) Fritz, M. S. (2021, August). *Calling all psychologists: The National Center for Science and Engineering Statistics*. An organized paper symposium presented at the annual meeting of the American Psychological Association, San Diego, CA (virtual).
- 34.) Fritz, M. S. (2021, August). *Too good to be true? A psychologist's experience working at NCSES*. A paper presented at the annual meeting of the American Psychological Association, San Diego, CA (virtual).
- 33.) Fritz, M. S. (2021, August). *Testing congruence between importance of and satisfaction with different job aspects: A novel application of latent transition analysis.* A poster presented at the annual meeting of the American Psychological Association, San Diego, CA (virtual).
- 32.) Chen, D., & Fritz, M. A. (2021, February). *Windsorized means as corrections for bias in the bias-corrected bootstrap test of mediation*. A paper accepted for presentation at the annual meeting of the Society for Personality and Social Psychology, Austin, TX (virtual).
- 31.) Ledermann, T., Rudaz, M., & Fritz, M. S. (2020, November). *Power analysis for the actor-partner interdependence model using MLM and SEM*. A 2020 Theory Construction and Research Methodology Workshop presented at the annual meeting of the National Council on Family Relations, St. Louis, MO (virtual).
- 30.) Fritz, M. S. (2020, August). Advanced quantitative methods for addressing complexities in psychological research. An organized paper symposium presented at the annual meeting of the American Psychological Association, Washington, DC (virtual).
- 29.) Fritz, M. S., Kenworthy, L., Wallace, G., Pugliese, C., & Armour, A. C. (2020, August). *Lessons from creating longitudinal data sets from multiple studies using the same participants.* A paper presented at the annual meeting of the American Psychological Association, Washington, DC (virtual).
- 28.) Chen, D., & Fritz, M. S. (2019, August). *Comparing alternative bias-corrections methods in the bias-corrected bootstrap test of mediation*. Poster presented at the annual meeting of the American Psychological Association, Chicago, IL.
- 27.) Nord, J., Bovaird, J. A., & Fritz, M. S. (2018, April). *Latent interaction modeling with planned missing data designs*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.
- 26.) Prokasky, A., Fritz, M. S., & Molfese, V. (2018, April). *Night-to-night variability in the bedtime routine impacts sleep in toddlers*. A poster presented at the 2018 CYFS Summit

on Research in Early Childhood, University of Nebraska – Lincoln, Lincoln, NE.

- 25.) Wheeler, L. A., & Fritz, M. S. (2018, February). *Mexican-origin young adult's work conditions and health: The moderating role of sociocultural context.* A poster presented at the Annual Minority Health Disparities Initiative Conference, University of Nebraska Lincoln, Lincoln, NE.
- 24.) Wheeler, L. A., & Fritz, M. S. (2017, November). *Mexican-origin young adult's work conditions and health: The moderating role of sociocultural context.* In S. Lee & K. Lawson (Chairs), *When work permeates into one's family and personal life.* A paper presented at the Annual Meeting of the National Council on Family Relations, Orlando, FL.
- 23.) Fritz, M. S., & Ryu, E. (2016, June). *A comparison of bootstrap confidence intervals for multilevel mediation*. A paper presented at the annual meeting of the Society for Prevention Research, San Francisco, CA.
- 22.) Halliburton, A. E., Fritz, M. S., MacKinnon, D. P., Goldberg, L., Elliot, D., & Moe, E. (2015, November). *Unpacking the ATLAS Program: Condition process modeling of steroid use among high school football players*. A poster presented at the annual meeting of the Association for Behavioral and Cognitive Therapies, Chicago, IL.
- 21.) Mills-Smith, L., Spangler, D., Panneton, R., & Fritz, M. (2015, March). *The interpretive utility of infant-calibrated cutoffs for interpreting effect size estimates*. A poster presented at the biennial meeting of the Society for Research on Child Development, Philadelphia, PA.
- 20.) Fritz, M. S., Cox, M. G., MacKinnon, D. P., & Taylor, A. B. (2015, February). *Issues with increasing statistical power in mediation models*. A paper presented at the annual meeting of the Society for Personality and Social Psychology, Long Beach, CA.
- 19.) Fritz, M. S., MacKinnon, D. P., & Kenny, D. A. (2014, June). *When two wrongs make a right: The opposing effects of ignoring measurement error and omitting confounders in the same single mediator model.* A paper presented at the annual meeting of the Society for Prevention Research, Washington, D.C.
- 18.) Mills-Smith, L., Spangler, D., Panneton, R., & Fritz, M. (2014, July). *A quantitative survey of effect size reporting and interpretation in infant research*. A poster presented at the biannual meeting of the International Society on Infant Studies, Berlin, Germany.
- 17.) Fritz, M. S. (2013, June). *Applications of advanced methods for collecting and analyzing intensive data*. An organized paper symposium presented at the annual meeting of the Society for Prevention Research, San Francisco, CA.
- 16.) Fritz, M. S. (2013, June). When the wrong model fits better: Effect of temporal design on trajectory selection in latent growth curve models. A paper presented at the annual

meeting of the Society for Prevention Research, San Francisco, CA.

- 15.) Fritz, M. S. (2011, June). *Methodological advances in longitudinal data analysis*. An organized paper symposium presented at the annual meeting of the Society for Prevention Research, Washington, D.C.
- 14.) Fritz, M. S., & MacKinnon, D. P. (2011, June). *Consequences of violating assumptions of mediation models*. An organized poster forum presented at the annual meeting of the Society for Prevention Research, Washington, D.C.
- 13.) Cox, M. G., Fritz, M. S., & MacKinnon, D. P. (2011, June). *Two methods to increase statistical power in mediation models*. A poster presented at the annual meeting of the Society for Prevention Research, Washington, D.C.
- 12.) Cox, M.G., Winett, R., & Fritz, M.S. (2011, April). *A meta-analysis of self-efficacy as a mediator of physical activity*. A poster presented at the annual meeting of the Society for Behavioral Medicine, Washington, D.C.
- 11.) Fritz, M. S., Taylor, A. B., & MacKinnon, D. P. (2010, June). *When does the bias-corrected bootstrap test of mediation produce elevated Type I error rates and why?* A poster presented at the annual meeting of the Society for Prevention Research, Denver, CO.
- 10.) Fritz, M. S., & MacKinnon, D. P. (2009, May). *Extensions of the exponential decay model for mediation*. A poster presented at the annual meeting of the Society for Prevention Research, Washington, D.C.
- 9.) Thoemmes, F., MacKinnon, D., Elliot, D., Kuehl, K., Goldberg, L., Defranscesco, C., Dulacki, K., McGinnis, W., Moe, E., & Fritz, M. (2009, May). *Long term effects of PHLAME – A longitudinal study of 7 years*. A poster presented at the annual meeting of the Society for Prevention Research, Washington, D.C.
- 8.) Fritz, M. S., & MacKinnon, D. P. (2008, May). *An exponential decay model for mediation*. A poster presented at the annual meeting of the Society for Prevention Research, San Francisco, CA.
- 7.) Taylor, A. B., MacKinnon, D. P., & Fritz, M. S. (2007, May). *Power curves for tests of mediation*. A poster presented at the annual meeting of the Society for Prevention Research, Washington, D.C.
- 6.) Bekman, S. K., Boring, J., Fritz, M. S., & Crnic, K. A. (2007, March). *Exploring* parenting stress trajectories and child externalizing behavior problems: A growth modeling prospective. A poster presented at the biennial meeting of the Society for Research in Child Development, Boston, MA.
- 5.) Fritz, M. S., & MacKinnon, D. P. (2006, June). Plots of the XM interaction in models of

*the mediated effect.* A poster presented at the annual meeting of the Society for Prevention Research, San Antonio, TX.

- 4.) Fritz, M. S., & MacKinnon, D. P. (2005, May). *Sample size and statistical power in tests of mediation.* A paper presented at the annual meeting of the Society for Prevention Research, Washington, D.C.
- 3.) Cheong, J., MacKinnon, D. P., Williams, J., & Fritz, M. S. (2005, May). *Evaluation of longitudinal mediating mechanisms of a drug prevention program for adolescent athletes.* A paper presented at the annual meeting of the Society for Prevention Research, Washington, D.C.
- 2.) MacKinnon, D. P., Lockwood, C. M., Williams, J., & Fritz, M. S. (2004, July). *Empirical power of twenty mediation tests.* A poster presented at the annual meeting of the American Psychological Society, Honolulu, HI.
- 1.) Fritz, M. S., MacKinnon, D. P., Williams, J., Goldberg, L., Moe, E. L., & Elliot, D. L. (2004, April). *Analysis of baseline by treatment interactions in a drug prevention and health promotion program for high school male athletes.* A poster presented at the annual meeting of the Western Psychological Association, Phoenix, AZ.

#### INVITED TALKS AND WORKSHOPS

- 19.) Fritz, M. S. (2022, April). *An introduction to item response theory*. An invited workshop for the National Center for Science and Engineering Statistics, National Science Foundation, Alexandria, VA.
- 18.) Fritz, M. S. (2021, December). *An introduction to exploratory and confirmatory factor analysis.* An invited workshop for the National Center for Science and Engineering Statistics, National Science Foundation, Alexandria, VA.
- 17.) Fritz, M. S. (2020, December). *Reliability and validity: An introduction to psychometrics and scale construction*. An invited workshop for the National Center for Science and Engineering Statistics, National Science Foundation, Alexandria, VA.
- 16.) Fritz, M. S. (2020, February). *It takes time: Quantitative methods for evaluating longitudinal social and behavioral research.* An invited talk for the Department of Prevention and Community Health, Milken Institute School of Public Health, George Washington University, Washington, DC.
- 15.) Fritz, M. S. (2020, January). Advantages of person-centered approaches: Applying latent class analysis to the 2017 Survey of Doctorate Recipients. An invited talk for the National Center for Science and Engineering Statistics, National Science Foundation, Alexandria, VA.
- 14.) Fritz, M. S. (2019, November). Post hoc alchemy: Addressing measurement issues in

*secondary data analyses.* An invited talk for the Buros Center for Testing, University of Nebraska – Lincoln, Lincoln, NE.

- 13.) Fritz, M. S. (2018, May). *Mediation, moderation, and conditional process models*. An invited two-day workshop for the School of Family and Consumer Sciences, Texas State University San Marcos, San Marcos, TX.
- 12.) Fritz, M. S. (2018, January). *Time is on my side: What British rock bands can teach us about designing longitudinal studies*. An invited talk for the Methodology Application Series, the Nebraska Academy for Methodology, Analytics & Psychometrics, University of Nebraska Lincoln, Lincoln, NE.
- 11.) Fritz, M. S. (2016, October). The mediated effect is significant, so I'm done, right? Thinking critically about testing and interpreting mediated effects in prevention interventions. An invited talk for the Department of Psychology, Boston College, Boston, MA.
- 10.) Fritz, M. S. (2016, March). *The mediated effect is significant, so I'm done, right? Thinking critically about testing and interpreting mediated effects in prevention interventions*. An invited talk for the Prevention and Methodology Training Program, The Methodology Center, Pennsylvania State University, State College, PA.
- 9.) Fritz, M. S. (2015, April). *Mediation, moderation, and conditional process models*. An invited workshop presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.
- 8.) Fritz, M. S. (2014, December). *The effects of nonlinearity, measurement error, and omitted variables in statistical mediation analysis.* An invited talk for the Big Ten Online Symposium Series in Educational Research Methods, University of Nebraska-Lincoln, Lincoln, NE.
- 7.) Fritz, M. S. (2013, March). *Power, Type I error, and nonlinearity in mediation models.* An invited talk for the Department of Psychology, Iowa State University, Ames, IA.
- 6.) Fritz, M. S. (2013, January). *Power, Type I error, and nonlinearity in mediation models.* An invited talk for the Research, Measurement, and Statistics program, Department of Educational Psychology, Texas A&M University, College Station, TX.
- 5.) Fritz, M. S. (2013, January). *Power, Type I error, and nonlinearity in mediation models.* An invited talk for the Quantitative, Qualitative, and Psychometric Methods program, Department of Educational Psychology, University of Nebraska – Lincoln, Lincoln, NE.
- 4.) Fritz, M. S. (2013, January). *Power, Type I error, and nonlinearity in mediation models.* An invited talk for the Department of Psychology, Fordham University, New York, NY.
- 3.) Fritz, M. S. (2009, June). Summer statistics workshop: Mediation and moderation

*analysis*. An invited five-day workshop for the Research, Measurement, and Statistics program, Department of Educational Psychology, Texas A&M University, College Station, TX.

- 2.) Fritz, M. S. (2006, January). *Required sample size to detect the mediated effect.* An invited talk for the Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA.
- 1.) Fritz, M. S. (2006, December). *Required sample size to detect the mediated effect.* An invited talk for the Department of Psychology, University of Notre Dame, South Bend, IN.

### **TEACHING**

#### UNIVERSITY OF NEBRASKA – LINCOLN (UNL)

EDPS 995 – Doctoral Seminar: Research	Fall 2018; Spring 2017–18, 20
EDPS 991 – Introduction to Longitudinal Methods	Fall 2015, 17, 19
EDPS 972 – Multivariate Analysis	Fall 2014, 16, 18; Spring 2020
EDPS 941 – Experimental Methods: ANOVA	Spring 2014–20
EDPS 859 – Statistical Methods	Fall 2013, 17, 19; Spring 2014–17, 19

#### VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY (VT)

PSYC 4364 – Advanced Topics in Clinical Research Methods	Spring 2011–13
PSYC 6014 – Applied Multivariate Data Analysis	Fall 2009–10, 12
PSYC 5316/6944 – Applied Multiple Regression	Fall 2008–09; Spring 2010–13
PSYC 5316 – Research Methods II	Spring 2008–09
(co-taught with Dr. Danny Axsom)	

ARIZONA STATE UNIVERSITY (ASU)

PSY 532 – Multivariate Statistics	Teaching Assistant for Dr. Leona Aiken	Fall 2005
PSY 531 – Multiple Regression	Teaching Assistant for Dr. Leona Aiken	Spring 2005
PSY 530 – ANOVA Te	aching Assistant for Dr. David MacKinnon	Fall 2004

#### STUDENT MENTORING AND ADVISING

#### DOCTORAL DISSERTATION COMMITTEES - COMPLETED

- 13.) Kirstie Bash (UNL Quantitative, Qualitative, and Psychometric Methods 4/8/20) Intersecting advanced quantitative designs with mixed methods research: A case for integrating latent transition analysis.
- 12.) Yage Guo (UNL Quantitative, Qualitative, and Psychometric Methods 2/23/20) Using rapid responses to evaluate test speededness in high-stakes testing.

- 11.) Amanda Prokasky (UNL Child, Youth and Family Studies 12/3/19) A longitudinal examination of bedtime routines and sleep in toddlers.
- 10.) Ann Arthur (UNL Quantitative, Qualitative, and Psychometric Methods 6/28/18) *Enhancing ability estimation with test-taking behavior*.
- 9.) Alaina Bassett (UNL Special Education and Communication Disorders 6/25/18) *Evaluating fall risk assessment protocols in the field of audiology.*
- 8.) Andrew Moskowitz (UCLA Quantitative Psychology 5/19/17) *Testing non-nested multilevel models*.
- 7.) ChaoRong Wu (UNL Quantitative, Qualitative, and Psychometric Methods 6/15/16) – Growth mixture CACE modeling: A statistical approach for evaluating causal effects in longitudinal interventions with noncompliance.
- 6.) Paige Lembeck (UNL School Psychology 5/14/15) Adolescent bullying: Do weight, body size, and body size dissatisfaction influence victimization?
- 5.) Scott Anderson (VT Clinical Psychology 1/22/2013) Examination of complicated grief, posttraumatic stress, and other psychological reactions among student survivors of the April 16<sup>th</sup> shootings at Virginia Tech.
- 4.) Matthew Cox (VT Clinical Psychology 5/18/2012) *Theoretical and psychometric specificity of self-regulation in physical activity: Validating measures of self-regulation.*
- 3.) Kelly Dugan-Burns (Virginia Tech Clinical Psychology 3/30/12) A traumainformed cognitive-behavioral intervention for pediatric oncology patients.
- 2.) Laura Wilson (VT Clinical Psychology– 3/30/12) The effects of exercise-induced heart rate arousal on stimulation seeking and aggression in college men.
- 1.) Emily Martin (VT Clinical Psychology 2/21/2012) Manual development and pilot testing of a mindfulness- and acceptance-based intervention for increasing cardiorespiratory fitness in sedentary adults.

### **COMPREHENSIVE EXAMINATIONS**

- 16.) Ahmed Haddadi (UNL Quantitative, Qualitative, and Psychometric Methods 3/6/2020)
- 15.) Ayotunde Akinleye (**Chair**; UNL Quantitative, Qualitative, and Psychometric Methods 10/28/2019)
- 14.) Donna Chen (**Chair**; UNL Quantitative, Qualitative, and Psychometric Methods 9/26/2019)
- 13.) Sam Perez-Gonzalez (**Co-Chair**; UNL Developmental and Learning Sciences 3/12/2019)
- 12.) Paul Dizona (UNL Quantitative, Qualitative, and Psychometric Methods 12/1/2018)
- 11.) Yage Guo (UNL Quantitative, Qualitative, and Psychometric Methods 5/1/2018)
- 10.) Kirstie Bash (UNL Quantitative, Qualitative, and Psychometric Methods 10/30/2017)
- 9.) Alaina Bassett (UNL Special Education and Communication Disorders 9/1/2016)
- 8.) Heath Wiley (UNL Construction Management 4/14/2016)
- 7.) Ann Arthur (UNL Quantitative, Qualitative, and Psychometric Methods 12/1/2015)
- 6.) Kaushalendra Amatya (VT Clinical Psychology 4/27/12) Witnessing partner violence in childhood: Attachment as a pathway to interpersonal violence victimization and subsequent outcomes in college students.
- 5.) Scott Anderson (VT Clinical Psychology 5/4/11) *Cognitive-behavioral approaches*

to treating PTSD: Evaluating treatment components and developing an intensive therapy for victims of violence.

- 4.) Kelly Dugan-Burns (VT Clinical Psychology 5/12/2010) The mental health effects of pediatric oncology: A posttraumatic stress conceptualization.
- 3.) Matthew Cox (VT Clinical Psychology 5/11/2010) Social cognitive variables mediating physical activity: A meta-analysis.
- 2.) Emily Martin (VT Clinical Psychology 3/31/2010) A mindfulness-based intervention for cardiorespiratory fitness.
- 1.) Laura Wilson (VT Clinical Psychology 1/29/2010) *The link between sensation seeking and aggressive behavior: A meta-analytic review.*

# MASTER'S THESES COMMITTEES – COMPLETED

- 8.) Donna Chen (**Chair**; UNL Quantitative, Qualitative, and Psychometric Methods 7/20/2018) A comparison of alternative bias-corrections in the bias-corrected bootstrap test of mediation.
- 7.) Jayden Nord (UNL Quantitative, Qualitative, and Psychometric Methods 10/16/17) *Latent interaction modeling with planned missing data designs.*
- 6.) Elizabeth Svoboda (UNL Quantitative, Qualitative, and Psychometric Methods 10/16/17) *Multilevel metric invariance: A Monte Carlo simulation*.
- 5.) Laura Mills (VT Developmental Psychology 5/2/13) Eye gaze does not attenuate cognitive load on 14-month-olds' word-object associative learning for minimal pairs.
- 4.) Kaushalendra Amatya (VT Clinical Psychology 5/2/11) Psychological outcomes in Asian and Asian American survivors of the April 16<sup>th</sup> shootings at Virginia Tech: Roles of acculturation and parental overprotection.
- 3.) Qiong (Joy) Wu (VT Developmental Psychology 2/10/2011) Do infants discriminate hyper- from non-hyper-articulated speech?
- 2.) Shujing (Jessie) Huang (VT Industrial/Organizational Psychology 2/18/2010) Shared leadership: Experimental evidence on its antecedents and impact on team outcomes.
- 1.) Shane Hutton (VT Mathematics 5/8/2009) *Modeling the United States unemployment rate with the Preisach model of hysteresis.*

# AWARDS AND HONORS

# <u>NATIONAL</u>

Participant – Established Scientist, NCSES Research Ambassadors Program	2020 - present
(formerly the Data Analysis and Statistics Research Program),	
Oak Ridge Institute for Science and Education	
Outstanding Contribution in Reviewing, Journal of School Psychology	2018
National Institutes of Health Early Career Reviewer Program	2014 - 2017
Honorable Mention, National Science Foundation Graduate Research Fellowship	2003
Psi Chi National Honor Society for Psychology	2002
Golden Key National Honor Society	2001

# **INSTITUTIONAL**

Outstanding Teaching Award – College of Education and Human Sciences, University of Nebraska – Lincoln2018Scholarly Enhancement Program – College of Education and Human Sciences, University of Nebraska – Lincoln2014 – 2016Peer-Review of Teaching Project – University of Nebraska – Lincoln2014 – 2015Program – Enture Faculty Program – Creducte Callege2004 – 2005
Scholarly Enhancement Program – College of Education and Human Sciences, University of Nebraska – Lincoln2014 – 2016Peer-Review of Teaching Project – University of Nebraska – Lincoln2014 – 2015
University of Nebraska – Lincoln2014 – 2015Peer-Review of Teaching Project – University of Nebraska – Lincoln2014 – 2015
Peer-Review of Teaching Project – University of Nebraska – Lincoln 2014 – 2015
Preserving Extrans Esculture Preservery Creschuster Callege 2004 2005
Preparing Future Faculty Program – Graduate College, 2004 – 2005
Arizona State University
University Graduate Scholar Award – Graduate College, 2002 – 2005
Arizona State University
Psychology Scholar – given to most outstanding undergrad for that term Spring 2001
Department of Psychology, Oregon State University
University Honors College – Oregon State University 1998 – 2002
Achievement Scholar – Oregon State University 1998 – 2002

## PROFESSIONAL SERVICE

# JOURNAL EDITORIAL BOARDS

Child Development	2019 - present
Evaluation & the Health Professions	2013 - present
Journal of School Psychology – Statistical and Methodological Advisor	2010 - 2019

### JOURNAL REVIEWER

Addictive Behaviors
American Journal of Orthopsychiatry
Behavior Genetics
Behavior Research Methods
BMC Bioinformatics
Child Development
Clinical Child and Family Psychology Review
Computational Statistics and Data Analysis
Developmental Psychology
Drug and Alcohol Dependence
Evaluation & the Health Professions
Evolutionary Psychology
European Journal of Personality
European Journal of Psychology of Education
Health Psychology
International Journal of Behavioral Development
Journal of Adolescent Health
Journal of Consulting and Clinical Psychology
Journal of Early Adolescence
-

Journal of Educational and Behavioral Statistics Journal of Experimental Psychology: General Journal of School Psychology Journal of Studies on Alcohol and Drugs Multivariate Behavioral Research Nursing Research **Organizational Research Methods Prevention Science** Psychological Medicine **Psychological Methods** Psychology of Addictive Behaviors Psychometrika Social Psychology Quarterly Sociological Methods and Research Statistical Methods in Medical Research Structural Equation Modeling

## GRANT REVIEW – PANELS AND AD HOC

Primary Member – Grant Review Panel, Institute of Education Sciences	2018 - present
Member – Grant Review Panel, National Science Foundation	2019
Member – Grant Review Panel, Institute of Education Sciences	2016 - 2018
External Reviewer - Grant Review Panel, Louisiana Board of Regents	2013
External Reviewer – Grant Review Panel, National Science Foundation	2011, 2014
External Reviewer – Grant Review Panel, Medical Research Council (U.K.)	2011
PROFESSIONAL ORGANIZATIONS	
Coordinating Officer – Division 5: Quantitative and Qualitative Methods, American Psychological Association	2016 - present
Alternate – Winter 2020 Council of Representatives Meeting, Division 5: Quant and Qual Methods, American Psychological Association	2020
Reviewer – Convention Proposals/Abstracts, Division 5: Quantitative and Qualitative Methods, American Psychological Association	2014 - 2015
Reviewer – Conference Proposals/Abstracts, Society for Prevention Research	2008 - 13, 19
Member – Conference Proposal/Abstracts Thematic Subcommittee,	2011
Society for Prevention Research	

#### **INSTITUTIONAL SERVICE**

LGBTQ Ally and Safe Space Provider – University of Nebraska-Lincoln	2013 - present
Faculty Director – Nebraska Evaluation and Research Center, Department	2016 - 2020
of Educational Psychology, University of Nebraska – Lincoln	
Chair – Executive Committee of the Graduate Faculty, College of	2018 - 2019
Education and Human Sciences, University of Nebraska – Lincoln	
Judge – Graduate Student Poster Session, Graduate Research Fair,	2018

University of Nebraska – Lincoln	
Judge – Science Literary (SCIL) 101 Student Poster Session, College of	2018
Agricultural Sciences and Natural Resources, University of	
Nebraska – Lincoln	
Chair – Graduate Committee, Department of Educational Psychology	2017 - 2019
University of Nebraska – Lincoln	
Member – Executive Committee of the Graduate Faculty, College of	2017 - 2019
Education and Human Sciences, University of Nebraska – Lincoln	
Member – Search Committee for Visiting Faculty, Survey Research and	2017 - 2018
Methodology Program, University of Nebraska – Lincoln	
Faculty Adviser – QQPM Student Association, Department of Educational	2015 - 2019
Psychology, University of Nebraska – Lincoln	
Member – Search Committee for Anti-Bullying Faculty, Department of	2015 - 2016
Educational Psychology, University of Nebraska – Lincoln	
Member – Graduate Committee, Department of Educational Psychology,	2014 - 2019
University of Nebraska – Lincoln	
Member – Technology Committee, College of Education and Human	2013 - 2018
Sciences, University of Nebraska – Lincoln	
Member – Search Committee for Industrial/Organizational Faculty, Department	2012 - 2013
of Psychology, Virginia Polytechnic Institute and State University	
LGBTQ Safe Zone Ally – Virginia Polytechnic Institute and State University	2011 - 2013
Reviewer – Graduate Research and Development Program, Graduate School,	2008 - 2011
Virginia Polytechnic Institute and State University	
Member – Search Committee for Quantitative/Health Faculty, Department	2008 - 2009
of Psychology, Virginia Polytechnic Institute and State University	
Member – Search Committee for Biostatistics Faculty, Department of	2008 - 2009
Statistics, Virginia Polytechnic Institute and State University	
Quantitative Psychology Representative – Psi Chi Graduate School	2005
Information Night, Department of Psychology, Arizona State University	
Student Member – Search Committee for Quantitative Faculty, Department	2004 - 2005
of Psychology, Arizona State University	