The Educational Research Methods and Analysis program provides rigorous training in statistical methods, educational measurement, and research methodologies. We offer several courses in applied statistics, from the quantitative foundations of educational research to more advanced methods such as multivariate statistics, multilevel modeling, and latent variable modeling. We also offer a number of courses in educational measurement, covering topics such as classical test theory, item response theory, and generalizability theory. In addition, our students have the opportunity to take a wide range of advanced statistics and quantitative methods courses, from probability, sampling methodology, and categorical data analysis to stochastic theory, time series analysis, Bayesian statistics, and other cutting-edge quantitative techniques. We train our students in various statistical software programs including SPSS, SAS, R, Mplus, Amos, HLM, and BILOG-MG. Our students also take courses in learning theories, aspects of human development, and program evaluation. Graduates from our program are prepared to make scientific and systematic inquiries and to make data-driven decisions, typically attaining employment positions at universities, research centers, and testing organizations.

**PHD PROGRAM**
Typically 4 years of coursework, including a series of classes in measurement, educational theories, and advanced statistical techniques. In addition, there is intensive involvement with faculty members who are conducting research in a variety of quantitative and statistical areas.

**MA PROGRAM**
Typically 2 years of coursework aimed at training students to make an immediate impact in the field of education and preparing them to pursue a doctoral program if they desire.

**HIGH QUALITY FACULTY**
Our program includes 7 core faculty members who are making significant contributions to the educational and psychological sciences through their teaching and research endeavors in quantitative methods. Our faculty are known for:

- **Prolific Publication Records:** In the past two years our faculty have published over 50 peer-reviewed journal articles with more than 50% credited as first author.
- **Innovative Grant-Funded Research:** In the past 5 years, our faculty have been awarded over $18.7 million in federal government and private foundation grants.
- **Prestigious Professional Awards:** Our faculty have been recognized as top researchers and leaders in the field. Some awards our faculty members have won include the Distinguished Research Award and Outstanding Publications Award from the American Educational Research Association.
- **Excellent Teaching:** In the past year, our faculty have won 2 Golden Apple Teaching Awards in addition to a Gold Chalk Award, which is given to the best professor in the social and behavioral sciences at Mizzou.
- **Editorial Leadership:** Our faculty are currently serving as Associate Editors, consulting editors, special issue editors, or editorial board members for various scientific outlets such as AERA Open, Behaviormetrics, International Journal of Quantitative Research in Education, Psychological Assessment, Journal of Research on Educational Effectiveness, and School Psychology Quarterly.
WES BONIFAY
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Dr. Bonifay’s research interests are in the area of psychological measurement, with particular focus in item response theory and model evaluation. He has published a number of quantitative research articles on psychometric topics such as dimensionality assessment, subscale analysis, and model complexity. He has also collaborated with substantive educational and psychological researchers, applying item response theory and structural equation models to better understand certain issues in school psychology, psychiatric treatment, and cognitive behavioral therapy.

NIANBO DONG
Assistant Professor
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Dr. Dong’s research program centers on both development of quantitative methodology, and applications of rigorous quantitative methods in evaluating the effects of teacher and principal professional development programs and early child education programs. His current interests focus on power analyses of the main, moderation, and mediation effects in multilevel experiments, and causal inference. His work has been supported by over $11 million of funding (over $1.5 million dedicated to research methodology) from the U.S. Department of Education’s Institute of Education Science (IES) and the National Science Foundation (NSF).

MATT EASTER
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Dr. Easter is an Educational Psychologist who teaches introductory applied statistics courses in the Educational, School, and Counseling Psychology department. His research interests include scale development, motivation, and online learning environments. He has worked on projects to develop online learning materials for the US Navy, US Department of Labor, and the University of Missouri.

ZE WANG
Associate Professor
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Dr. Huang is an applied quantitative methodologist who focuses on both methodological (e.g., analysis of clustered data) and substantive (e.g., school climate, effectiveness of interventions, measurement of school bullying) areas of research. He is the recipient of a national research award given by the American Educational Research Association (AERA) and sits on the editorial boards of School Psychology Quarterly and AERA Open. His recent research has been funded by separate grants from the Office of Juvenile Justice and Delinquency Prevention Program of the U.S. Department of Justice.

ROBBIE SCHOLES
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Dr. Scholes is an educational psychologist who teaches research design and measurement courses in the Educational, School, and Counseling Psychology department. Prior to her current position Dr. Scholes worked as a research analyst for ACT Inc. where she gained invaluable experience in survey design and construction. Her research interests focus on attitudes of pre-service teachers toward bullying, LGBTQ youth, students with learning disabilities, etc., charter schools, and teacher retention.

WOLFGANG WIEDERMANN
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Dr. Wiedermann’s primary research interests include the development of methods for causal inference, methods to determine the direction of effects in nonexperimental studies, and methods for intensive longitudinal data in the person-oriented research setting. He has edited volumes on advances in statistical methods for causal inference and new developments in statistical methods for dependent data analysis in the social and behavioral sciences. He serves as an associate editor of Behaviormetrika and the Journal of Person-Oriented Research.

For more information on our faculty visit education.missouri.edu/people