DESCRIPTION

The role of quantitative methods in testing developmental hypotheses is widely recognized, yet even very experienced quantitative researchers often lack the knowledge required for good decision-making on methodology. The end result is a disconnect between research and practice in methods. The purpose of this monograph is to fill a gap in the literature by offering a series of overviews on common data-analytic issues of particular interest to researchers in child development. Our hope is that this monograph will make already developed methods accessible to developmentalists so they can understand and use them in their research. We start at the beginning with chapters on data management and measurement, two neglected topics in methods training despite the fact that every investigation should begin with proper consideration of each. We follow with two important topics for developmental research, missing data and growth modeling. Missing data can plague developmental work because participants sometimes miss one or more assessment points. Growth modeling methods offer researchers a true means to assess change over time as compared with cruder methods like difference scores and residualized change scores. Then comes a discussion of mediation and moderation, two tools that can be used to elucidate developmental processes. Because so much developmental science is non-experimental, we include a chapter on selection bias that compares five modeling strategies. Proper attention to data management, measurement, missing data, growth modeling (whenever possible), mediation and moderation, and potential selection bias is guaranteed to result in greater precision in inference-making. Even when researchers make good decisions about methods, it is critical for them to use good judgment about the practical importance of findings, so we conclude with this important discussion. We view this monograph as a first step to getting quantitative researchers started and we believe this reference will help researchers make better-informed decisions about methodology.
Roger Bakeman (Ph.D., University of Texas at Austin) is professor of psychology at Georgia State University, Atlanta, Georgia. He is the author, with J. M. Gottman, of Observing Interaction: An Introduction to Sequential Analysis (2nd ed.; 1997), and, with V. Quera, of Analyzing Interaction: Sequential Analysis With SDIS and GSEQ (1995). His interests include observational methodology and sequential analysis of observational data.

Denise Brewer (Ph.D., University of North Carolina at Charlotte) is currently an Assistant Professor at Appalachian State University in the Child Development Department. She earned her Ph.D. in special education. She also received her master’s degree from the University of North at Carolina Chapel Hill in early intervention and family support and her undergraduate degree from Appalachian State University in birth through kindergarten.

Research interests and background include assessment issues with young children.

Kristen L. Bub (M.Ed., Harvard Graduate School of Education) is a fifth year doctoral student in Human Development and Psychology. She earned
her master's degree in human development, with a concentration in research methods, from the Harvard Graduate School of Education. Her research focuses on the role that early education experiences play in children's social and academic development.

Margaret Burchinal (Ph.D., University of North Carolina) is a Senior Scientist and director of the Data Management and Analysis Center at the Frank Porter Graham Center and Research Professor of Psychology at the University of North Carolina at Chapel Hill. She is a methodologist who is best known for her methodological work on longitudinal modeling as well as for her substantive work on child care.

For additional product details, please visit https://www.wiley.com/en-us