

Series Editor's Note

Randall Schumacker is one of my heroes for being a prolific scholar and pioneer in best-practice methodology. Structural equation modeling (SEM) is one of my loves. And I am a fan of meta-analysis. Wow—heroes, loves, and fans. Thank you, Randall, for putting this all together in an informative, gap-filling, and accessible resource. SEM is a versatile approach to any statistical topic, and Randall demonstrates how SEM can be applied to synthesize results from multiple studies of a given topic using the principles of meta-analysis: MASEM. He presents clear sample code across diverse examples and multiple SEM packages—LISREL, Mplus, and R—including the metaSEM package in R. Code and output are presented in detail in text, highlighted in boxes, and added as appendices. Everything is also available on the companion website at www.guilford.com/schumacker-materials.

Randall begins the journey by going back to the roots of research synthesis in the field of medicine. He then presents the importance of a thorough review of the literature and how to obtain the effect size evidence needed for any meta-analysis. He pays homage to the various meta-analysis software packages that are available before introducing the basis principles of SEM, its assumptions, and the steps involved. Beginning with Chapter 7, Randall presents the MASEM examples, starting with a simple path model and moving into the confirmatory factor model as applied to the context of meta-analysis. The full MASEM approach starts in Chapter 9 and the necessity of treating meta-analysis as a multilevel method in Chapter 10, given that studies are conducted across different occasions of measurement (i.e., time is a nested effect).

Meta-analysis is rife with issues that can affect the quality of the findings and the impact they can have on policy and practice. In latter chapters, Randall articulates these issues, including the importance of a complete literature search, recognizing the potential publication bias that can occur and determining the focal statistic

and measure of effect size to collect. He also emphasizes other issues, including the heterogeneity of effect sizes across studies and the influence that sample size differences between studies can have. He concludes with a recap of the steps involved in conducting an MASEM and the importance of following the reporting standards of PRISMA and the APA. All in all, Randall has provided us with an indispensable resource for properly conducting MASEM.

As always, enjoy!

TODD D. LITTLE, PhD

At my "Wits End" in Lakeside, Montana