

Contents

Preface	vii
1 Fundamentals of Structural Equation Modeling	1
What Is Structural Equation Modeling?	1
Path Diagrams	8
Rules for Determining Model Parameters	17
Parameter Estimation	22
Parameter and Model Identification	34
Model-Testing and -Fit Evaluation	38
Appendix to Chapter 1	52
2 Getting to Know the EQS, LISREL, and <i>Mplus</i> Programs	55
Structure of Input Files for SEM Programs	55
Introduction to the EQS Notation and Syntax	57
Introduction to the LISREL Notation and Syntax	64
Introduction to the <i>Mplus</i> Notation and Syntax	73
3 Path Analysis	77
What Is Path Analysis?	77
Example Path Analysis Model	78
EQS, LISREL, and <i>Mplus</i> Input Files	80
Modeling Results	84
Testing Model Restrictions in SEM	100

Model Modifications	109
Appendix to Chapter 3	114
4 Confirmatory Factor Analysis	116
What Is Factor Analysis?	116
An Example Confirmatory Factor Analysis Model	118
EQS, LISREL, and <i>Mplus</i> Command Files	120
Modeling Results	124
Testing Model Restrictions: True Score Equivalence	140
Appendix to Chapter 4	145
5 Structural Regression Models	147
What Is a Structural Regression Model?	147
An Example Structural Regression Model	148
EQS, LISREL, and <i>Mplus</i> Command Files	150
Modeling Results	153
Factorial Invariance Across Time In Repeated Measure Studies	162
Appendix to Chapter 5	173
6 Latent Change Analysis	175
What is Latent Change Analysis?	175
Simple One-Factor Latent Change Analysis Model	177
EQS, LISREL, and <i>Mplus</i> Command Files for a One-Factor LCA Model	181
Modeling Results, One-Factor LCA Model	187
Level and Shape Model	192
EQS, LISREL, and <i>Mplus</i> Command Files, Level and Shape Model	195
Modeling Results for a Level and Shape Model	197
Studying Correlates and Predictors of Latent Change	201
Appendix to Chapter 6	222
Epilogue	225
References	227
Author Index	233
Subject Index	235