

Appendix A: Overview of Multilevel Modeling Texts and Suggested Readings

Textbooks for Multilevel Modeling

These texts cover multilevel modeling within the context of clustered (nested) observations primarily. They are ordered in terms of my opinion of their accessibility (most to least).

Kreft, I., & de Leeuw, J. (1998). *Introducing multilevel modeling*. Thousand Oaks, CA: Sage.

Heck, R. H., & Thomas, S. L. (2008). *An introduction to multilevel modeling techniques* (2nd ed.). New York: Routledge

Hox, J. J. (2010). *Multilevel analysis: Techniques and applications* (2nd ed.). New York: Routledge.

Snijders, T. A. B., & Bosker, R. (2011 2nd ed.). *Multilevel analysis: An introduction to basic and advanced multilevel modeling*. Thousand Oaks, CA: Sage.

Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods* (2nd Ed.). Thousand Oaks, CA: Sage.

These texts cover multilevel modeling within the context of longitudinal observations primarily. They are ordered in terms of my opinion of their accessibility (most to least).

Hoffman, L. (in press 2014). *Longitudinal analysis: Modeling within-person fluctuation and change*. NY, NY: Routledge Academic.

Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. New York: Oxford University Press.

Fitzmaurice, G., Laird, N. M., & Ware, J. H. (2004). *Applied longitudinal analysis*. New York: Wiley.

Hedeker, D., & Gibbons, R. D. (2006). *Longitudinal data analysis*. New York: Wiley.

Verbeke, G., & Molenberghs, G. (2001). *Linear mixed models for longitudinal data*. New York: Springer-Verlag.

These texts cover longitudinal models within the context of structural equation modeling.

Preacher, K. J., Wichman, A. L., MacCallum, R. C., & Briggs, N. E. (2008). *Latent growth curve modeling. Quantitative applications in the social sciences, #157*. Thousand Oaks, CA: Sage.

Bollen, K. A., & Curran, P. J. (2005). *Latent curve models: A structural equation perspective*. New York: Wiley.

Duncan, T. E., Duncan, S. C., Strycker, L. A., Li, F., & Alpert, A. (1999). *An introduction to latent variable growth curve modeling: Concepts, issues, and applications*. Mahwah, NJ: Erlbaum.

The latter chapters in this ANOVA text introduce MLM from the ANOVA perspective.

Maxwell, S. E., & Delaney, H. D. (2004). *Designing experiments and analyzing data*. Mahwah, NJ: Erlbaum.

Suggested Readings by Topic

Lectures 1. Introduction to MLM

- Snijders & Bosker ch. 1-2
- Singer & Willett ch. 1-2
- Raudenbush & Bryk ch. 2
- Hoffman ch. 1

Lecture 1. Review of General Linear Models and Repeated Measures ANOVA

- Hedeker & Gibbons ch. 1-3
- Fitzmaurice, Laird, & Ware ch. 5-6
- Maxwell & Delaney ch. 12-14
- Hoffman ch. 2-3

Lecture 2. Fixed vs. Random Effects of Time

- Singer & Willett ch. 3-4
- Hedeker & Gibbons ch. 4
- Fitzmaurice, Laird, & Ware ch. 7-8
- Snijders & Bosker ch. 12
- Hox ch. 5
- Raudenbush & Bryk ch. 6
- Hoffman ch. 5

Lecture 2. Fun with Model Comparisons

- Singer & Willett ch. 4
- Snijders & Bosker ch. 6-7
- Raudenbush & Bryk ch. 3
- Hox ch. 3
- Stoel, R. D., Garre, F. G., Dolan, C., & van den Wittenboer, G. (2006). On the likelihood ratio test in structural equation modeling when parameters are subject to boundary constraints. *Psychological Methods*, 11(4), 439-455.
- Verbeke & Molenberghs ch. 5-6
- Hoffman ch. 3 and 5

Lecture 2. Random Effects Models for Nonlinear Change

- Singer & Willett ch. 6
- Hedeker & Gibbons ch. 5
- Raudenbush & Bryk ch. 6
- Hoffman ch. 6
- Cudeck, R., & Harring, J. R. (2007). Analysis of nonlinear patterns of change with random coefficient models. *Annual Review of Psychology*, 58, 615-637.
- Grimm, K. J., & Ram, N. (2009). Nonlinear growth models in Mplus and SAS. *Structural Equation Modeling*, 16, 676-701.

Lecture 3. Time-Invariant Predictors

- Snijders & Bosker ch. 3-5
- Raudenbush & Bryk ch. 5
- Fitzmaurice, Laird, & Ware ch. 15
- Hedeker & Gibbons ch. 4
- Hoffman ch. 7

Lecture 4. Multilevel Models for Other Repeated Measures Data (Crossed Random Effects)

- Raudenbush & Bryk ch. 12
- Snijders & Bosker ch. 13
- Hoffman ch. 12