

Part III

Advanced Research Methods

With an assessment selected, psychometrics evaluated, and scores obtained from data collection, a natural question that may emerge is, “What are the new methods for analyzing fluency data?” This part contains three chapters that focus on emerging statistical methods in fluency research, all of which are critical to contemporary research questions. Chapter 10 by McCoach and colleagues provides a discussion of growth curve analysis using structural equation modeling. In this chapter, the authors demonstrate different forms of the individual growth curve and how to model change with multiple outcomes. Chapter 11 by Logan and colleagues presents an introduction to mixture models via latent class analysis. This technique uses a categorical latent variable to test if observed measures identify one or more groups of responders. Chapter 12 by Petscher and colleagues introduces the reader to latent change score analysis, a model which views growth as a function of average change over time as well as a function of auto-regressive and coupling effects. All the three chapters use the same data set to illustrate the technique. The data and code are available at <http://myweb.fsu.edu/ymp5845/>.