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Introduction to Structural Equation Modeling Using IBM SPSS Amos (V22)
Information

Length: 2.0 Days
Ref: 0G203G-X
Delivery method: Classroom
Price: EUR

Overview

Introduction to Structural Equation Modeling Using IBM SPSS Amos (V22) is a two day instructor-led classroom course that guides students through the fundamentals of using IBM SPSS Amos for the typical data analysis process. You will learn the basics of Structural Equation Modeling, drawing Diagrams in Amos Graphics, performing regression and confirmatory factor analysis in Amos, evaluating model fit, and ways to improve model fit.

Public

This basic course is for:

- Analysts with familiarity with Structural Equation Modeling
- Anyone with little or no experience in using IBM SPSS Amos

Prerequisites

You should have:

- Experience with Linear Regression **and** Factor Analysis

Experience using with IBM SPSS Amos is not necessary, though basic familiarity with Structural Equation Modeling would be helpful.

Objective

Please refer to Course Overview for description information.

Topics

Introduction to Structural Equation Modeling

- Some Examples of SEM Models
- Terminology in SEM

Drawing Diagrams in Amos Graphics

- Launching Amos Graphics
- Drawing the Diagram
- Example - Sample Factor Analysis Path Diagram
- Example - Multiple Regression Path Diagram

Regression Analysis in Amos

- Setting up a Regression in Amos
- Requesting a Linear Regression
- Regression Output
- Demonstration: Multiple Regression

Testing Model Adequacy

- Implied versus Sample Moments
- Requesting Implied and Sample Moments
- Constraining the Regression Weight to Zero
- Testing a Hypothesis with the Chi-Square Test
- Displaying the Chi-Square Test in the Diagram
- Degrees of Freedom
- Verifying the Degrees of Freedom
- Model Identification
- Demonstration: Testing the Fit of a Path Analysis Model

Additional Fit Measures in Amos

- Alternative FIT Measures
- Demonstration: Fitting a Model with Multiple Regression

Confirmatory Factor Analysis in Amos

- Latent vs. Observed Variables
- Exploratory vs. Confirmatory Factor Analysis
- Estimating and Identifying a Latent Model in CFA
- Requesting a Confirmatory Factor Analysis
- Demonstration of a Confirmatory Factor Analysis

The General Model

- Requesting the General Model
- Demonstration: General Model

Analyzing Data With Missing Values in Amos

- Demonstration: How to Use the Full Information Maximum Likelihood Method to Handle Missing Values
- Estimating Means and Intercepts
- Imputing Missing Data
- Demonstration: Imputing Missing Data in Amos
- Analyzing the Imputed Data Files

Improving the Fit of a Model

- Correcting the Model
- Modification Index
- Demonstrating How to Use Modification Indices
- Trimming a Model for Better Fit
- Demonstrating How to Trim a Model for Better Fit
- Using Modification Indices with Missing Data

Getting the Best Model with Specification Search

- Exploratory Factor Analysis
- Performing a Specification Search
- Demonstration: Regression Analysis