

Objectives & What Will be Taught



This module serves as an introduction to the fundamental use of the Structural Equation Models using Stata; it is by no means to be an exhaustive course. Participants will learn the foundation of using the SEM/GSEM commands to enhance their research work.

Day 1

The relationships between Regression Models, MANOVA/MANCOVA, Mixed Models, Generalized Linear Mixed Models (GLMM) & Structural Equation Models (using SEM/GSEM) will be highlighted.

The concept of Pathway Analysis will be contrasted with the usual Regression Analysis.

The differences between the terms Confounders, Covariates, Moderator & Mediator will be discussed. Emphasis will be on Mediation Analysis: simple mediation effects with numerical variables (1 dependent, 1 independent & 1 mediator) to obtain the total, direct & indirect estimates will be shown using the Stata commands: SEM/GSEM & sgmediation.

The procedure Binary Mediation for binary dependent variable with numerical/binary independent/mediator will be discussed.

Lastly, extension to have multiple independent & mediators including covariates on the SEM command is shown.

Day 2 - Confirmatory Factor Analysis (CFA) & Structural Equation Models

Reliability & Exploratory Factor Analysis (EFA) revisited. Latent variables introduced, extending EFA to Confirmatory Factor Analysis (CFA) with focus on the Goodness of Fit indexes. Techniques on how to improve the goodness of fit for a CFA model will be discussed. Lastly, an introduction to the concept of Structural Equation Modelling using Stata & R will be highlighted.

Instructor



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Information is subject to change without notice and correct at time of publicity (September 2017).

Structural Equation Modelling Workshop Using Stata

11 & 12 December 2017
Monday & Tuesday
9am – 5pm

Saw Swee Hock School of Public Health
National University of Singapore
Block MD1, Computer Lab 2, Level 8
12 Science Drive 2
Singapore 117549

Organised By:

NUHS Medical Publications Support Unit

CPE points are in process of accreditation

Programme



	Day 1	Day 2
8.30am	<i>Registration</i>	<i>Registration</i>
9.00am	<ul style="list-style-type: none"> ❖ Regression Models vs SEM ❖ SEM vs GSEM 	<ul style="list-style-type: none"> ❖ Reliability & Exploratory Factor Analysis (EFA) ❖ Confirmatory Factor Analysis (CFA): Goodness of Fit Indexes
10.00am	<i>Morning Break</i>	<i>Morning Break</i>
10.30am	<ul style="list-style-type: none"> ❖ MANOVA/MANCOVA ❖ Mixed Models vs SEM/GSEM ❖ Pathway Analysis ❖ Medication Analysis: SEM, sgmediation 	<ul style="list-style-type: none"> ❖ Confirmatory Factor Analysis (CFA): Assessing Goodness of Fit ❖ Structural Equation Models - Regression with Latent Variables
12.00pm	<i>Lunch</i>	<i>Lunch</i>
1.00pm	<ul style="list-style-type: none"> ❖ Binary Mediation ❖ Mediation Effects <ul style="list-style-type: none"> • Multiple Independent Variables • Multiple Mediation Variables • Adding of Covariates 	<ul style="list-style-type: none"> ❖ Structural Equation Models - Building Hypothesized Models
3.00pm	<i>Afternoon Break</i>	<i>Afternoon Break</i>
3.30pm	Exercises	Exercises
5.00pm	<i>End</i>	<i>End</i>

- A personal computer will be provided for each participant

Registration Details



To register for the workshop, please access this online registration website:
<https://itumed.nus.edu.sg/psu/registration/index.aspx>

Fee
S\$535 (with GST)

Closing
20 November 2017, Monday
(Please register early as only a limited number of seats are available. Registration is on a first-come-first-served basis, and confirmed upon receipt of payment.)

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Cancellation Policy

Any cancellation must be conveyed to the Secretariat in writing. There will be no fee refund for any cancellation after 20 November 2017. The Organiser reserves the right to cancel the workshop and fully refund the participants should unforeseen circumstances necessitate it.