ITEMS Digital Module 02: Scale Reliability in Structural Equation Modeling

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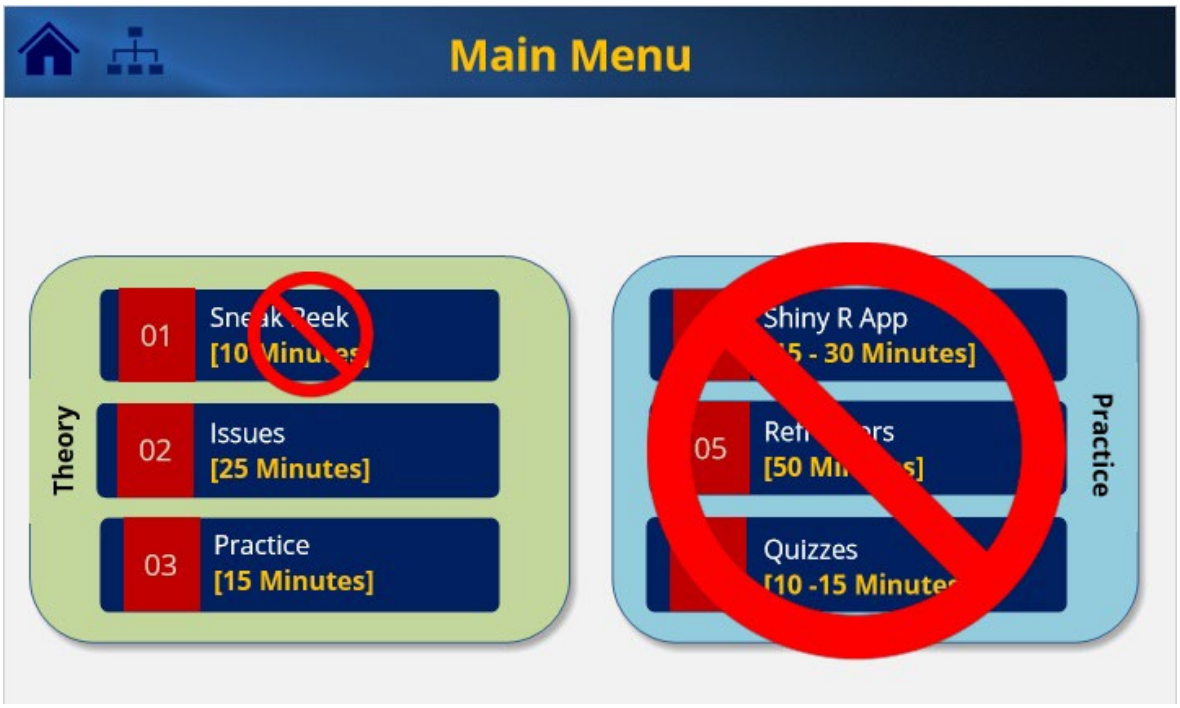
This document contains all core content slides from sections 2 & 3 with the exception of slides that show video screens. In the digital module all slides can be accessed individually.

Module Organization

The module starts with an introductory section that leads to the main menu from which learners can select individual content and activity sections:



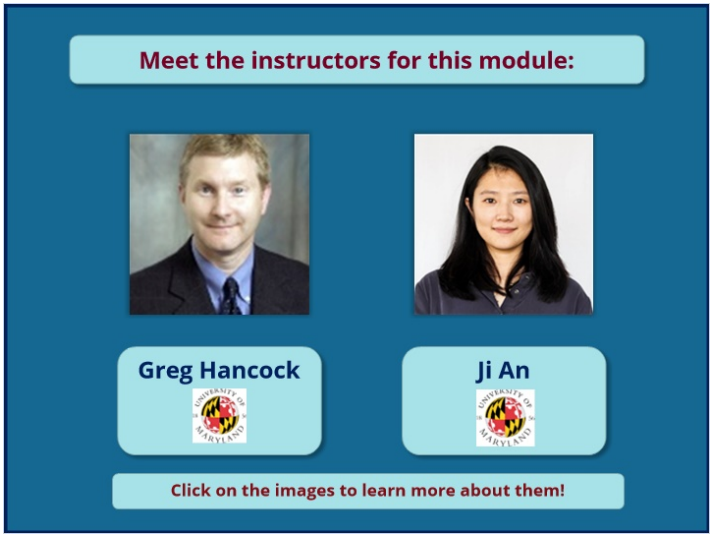
This handout only contains the slides for the introductory section and the *Issues* and *Practice* section due to the interactive nature of many other slides.

ITEMS: Scale Reliability in SEM (Version 1.6)

1. Introduction

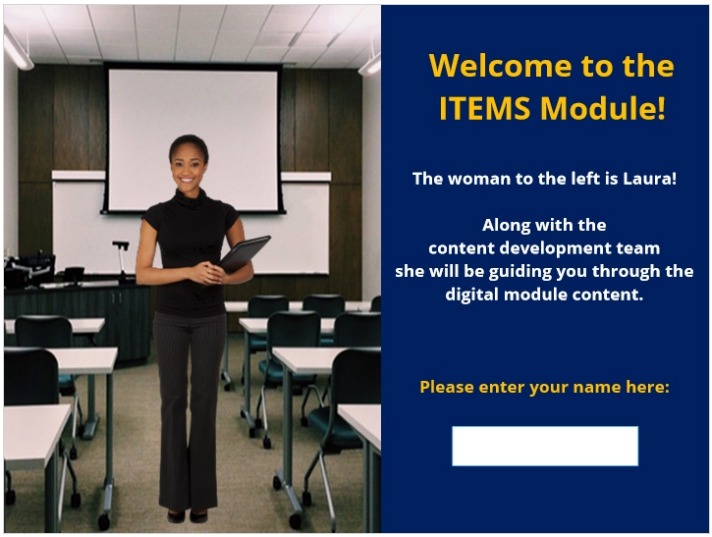
1.1 Module Cover (START)

1.2 Instructors

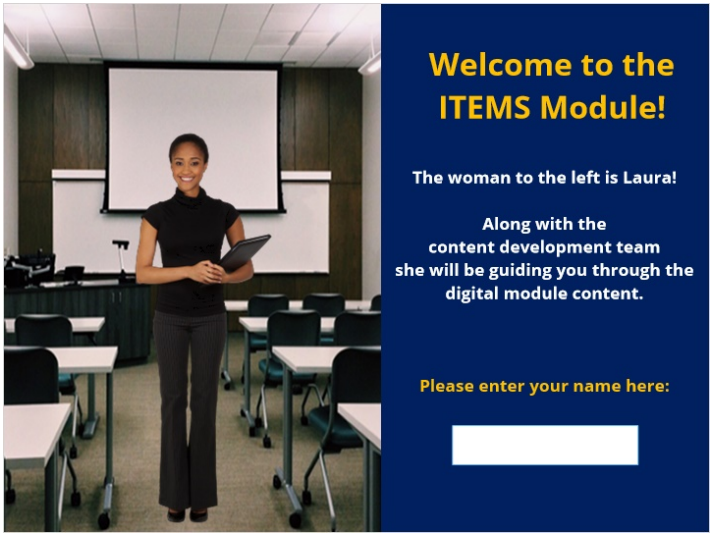


1.3 Designers

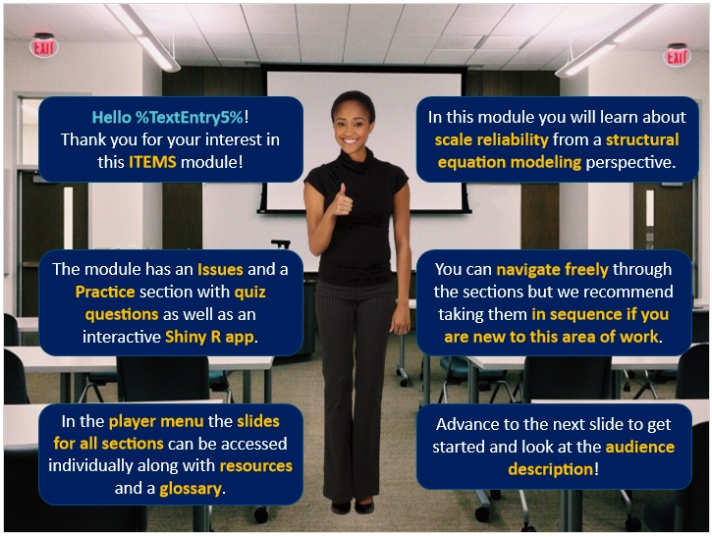
1.4 Welcome



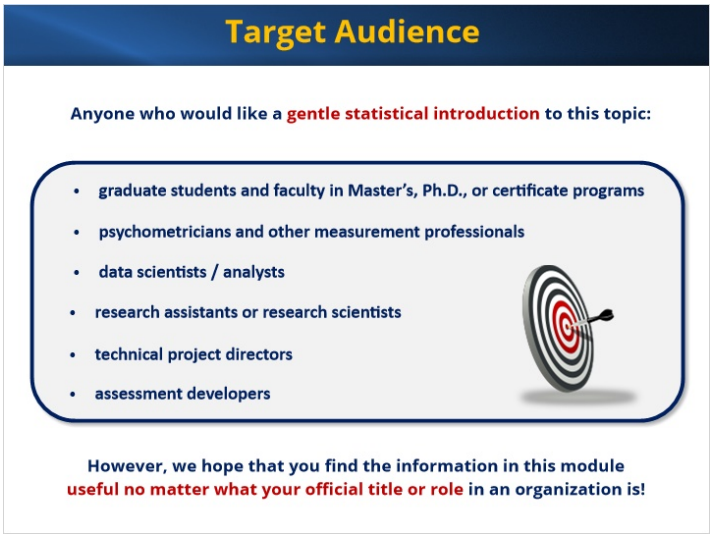
Untitled Layer 1 (Slide Layer)



1.5 Overview

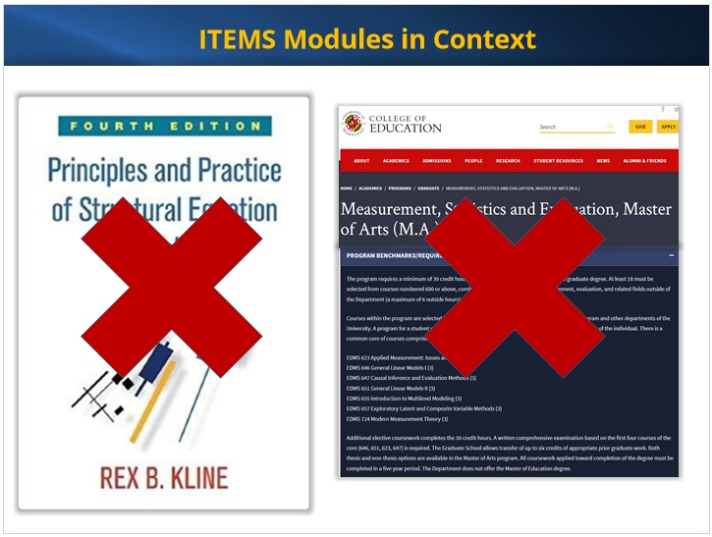


1.6 Target Audience

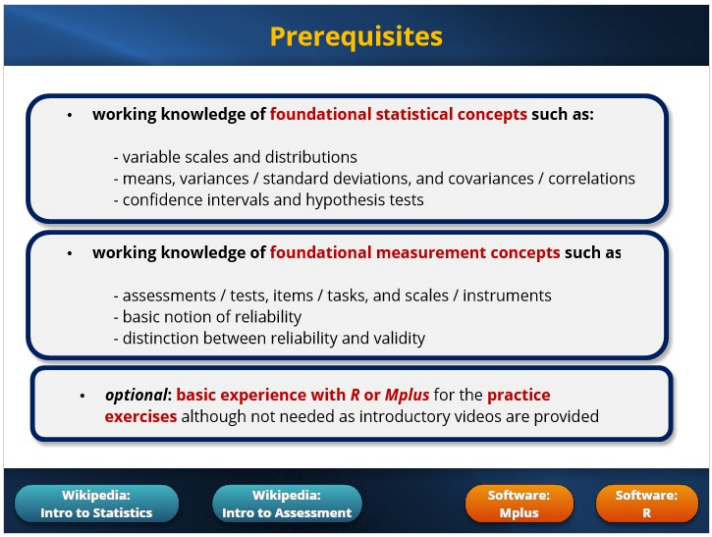


1.7 Expecations (I)

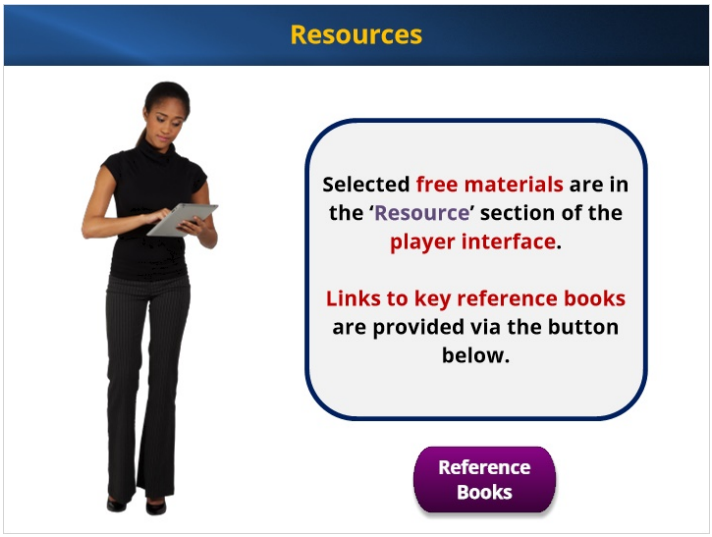
1.8 Expectations (II)



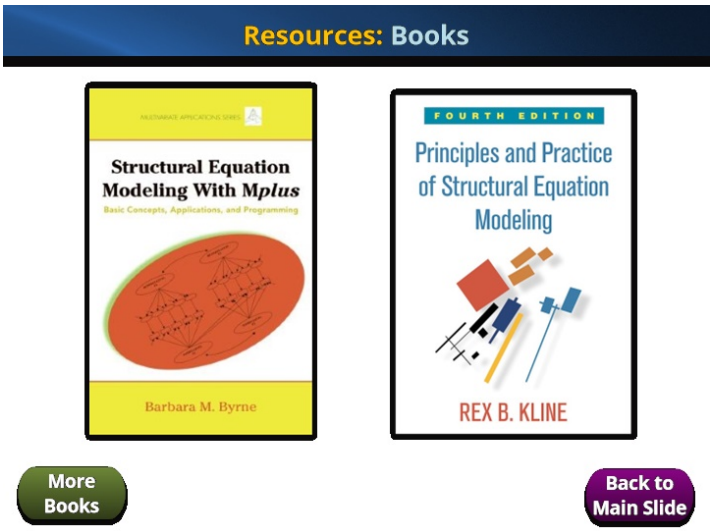
1.9 Prerequisites



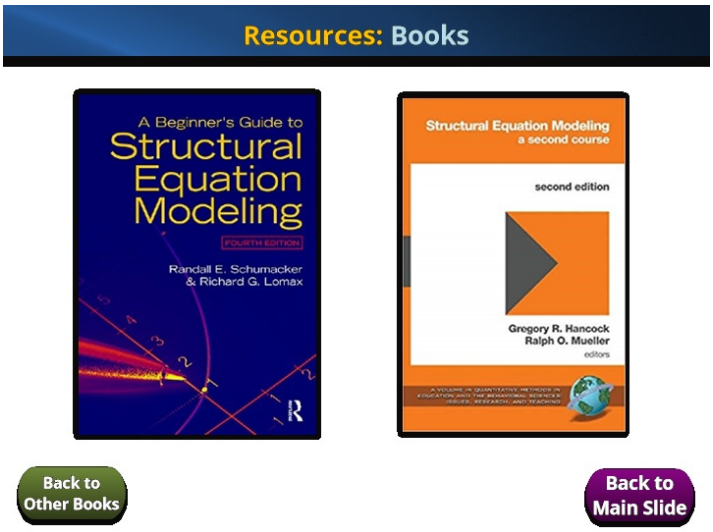
1.10 Resources



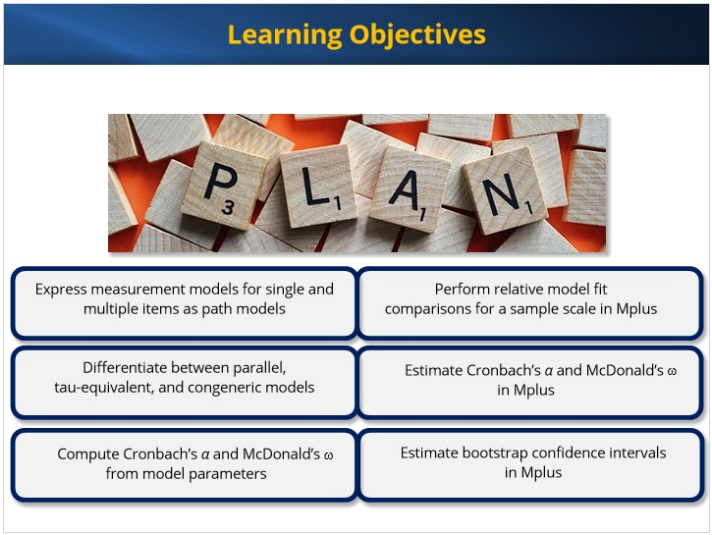
Resources Detail (Slide Layer)



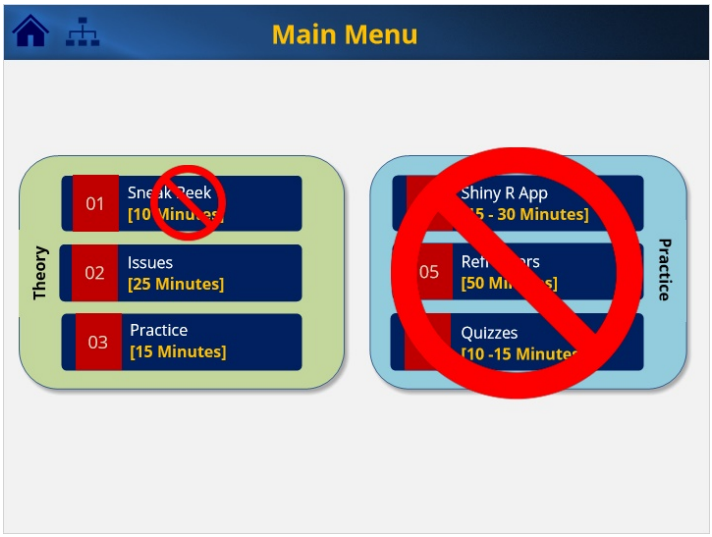
Resources Detail 2 (Slide Layer)



1.11 Learning Objectives

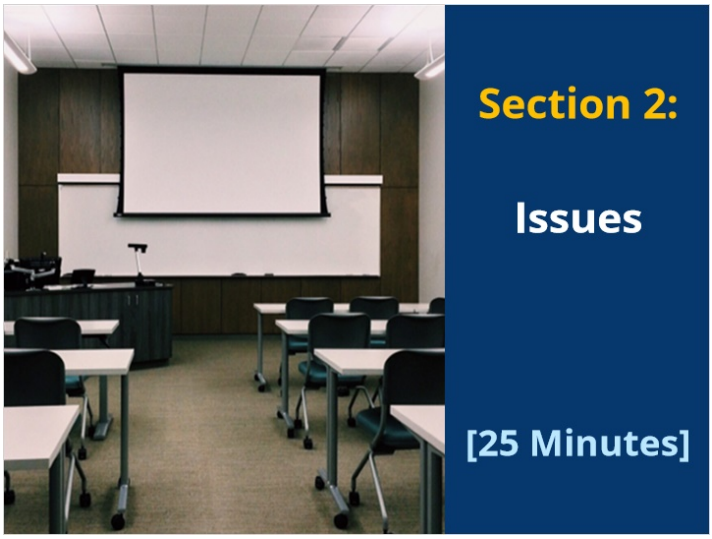


1.12 Main Menu

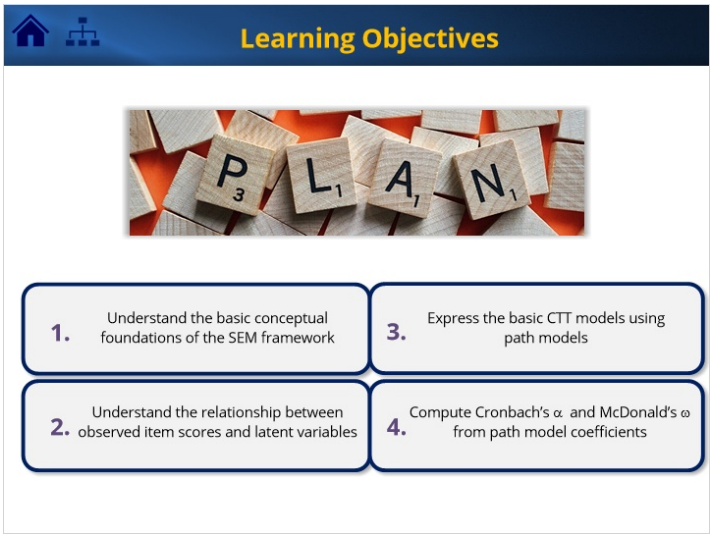


2. Section 2: Issues

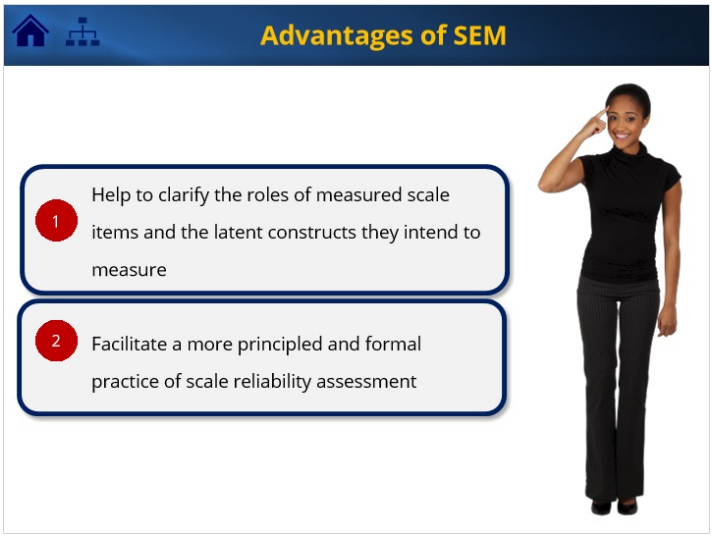
2.1 Cover: Issues



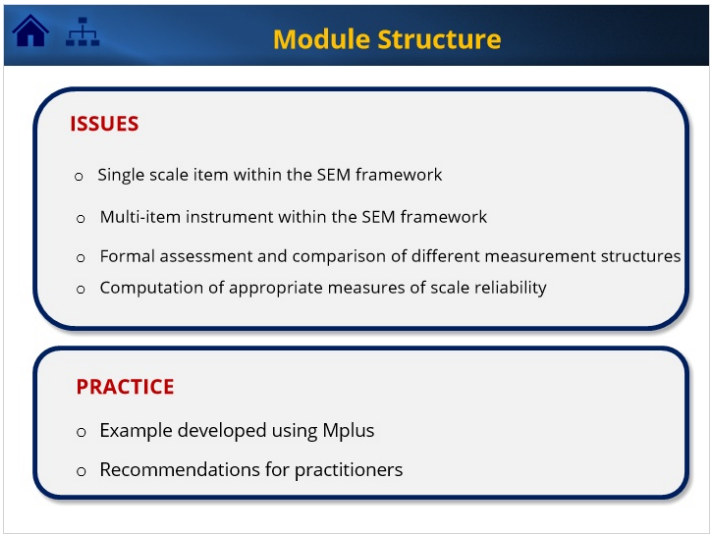
2.2 Objectives: Issues



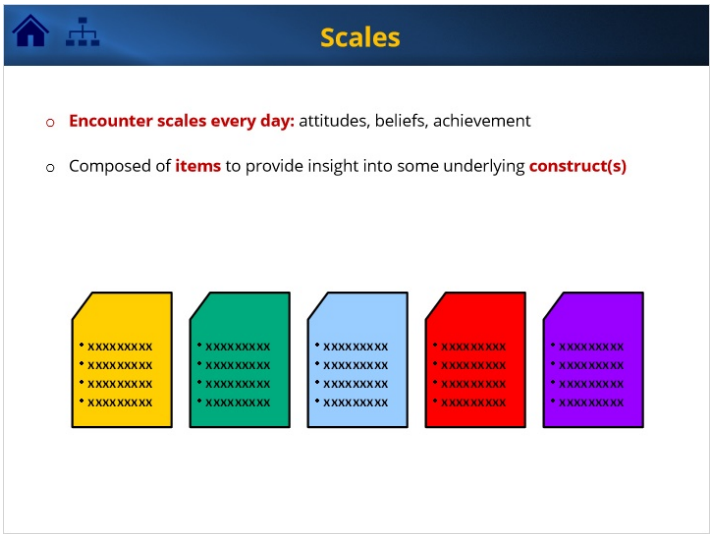
2.3 Intro to Issues (I)



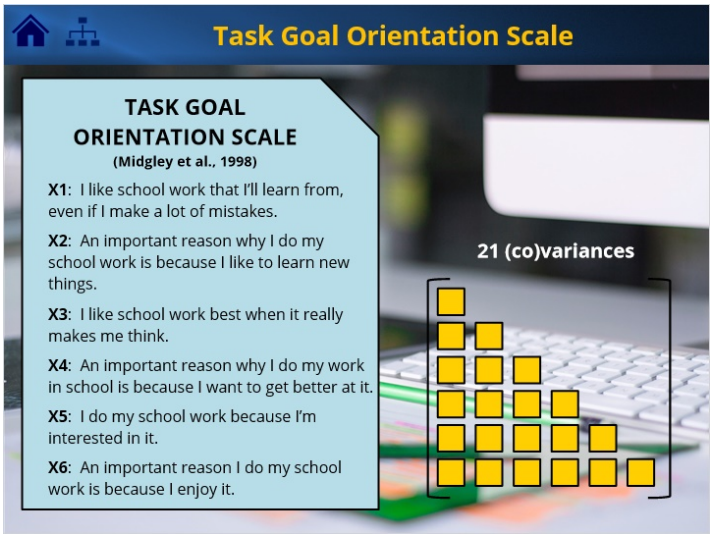
2.4 Intro to Issues (II)



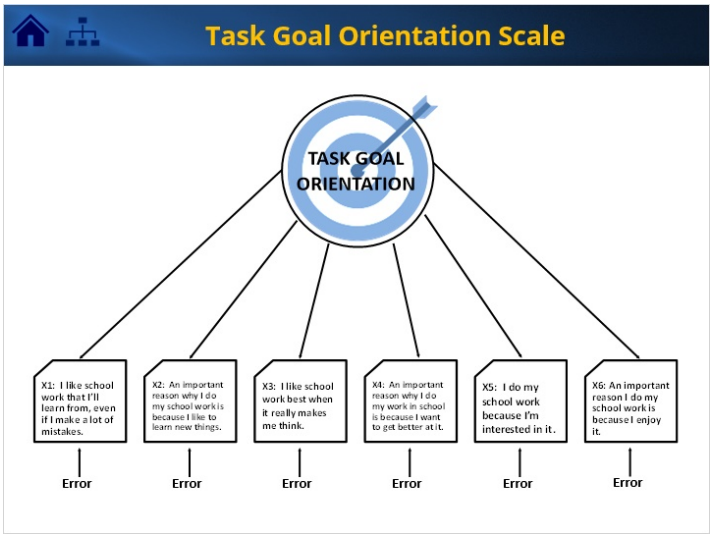
2.5 Scales



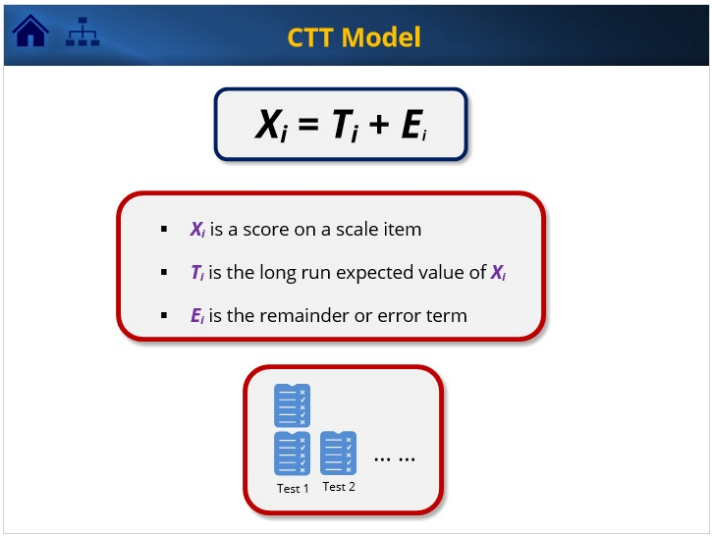
2.6 Goal Orientation Scale (I)



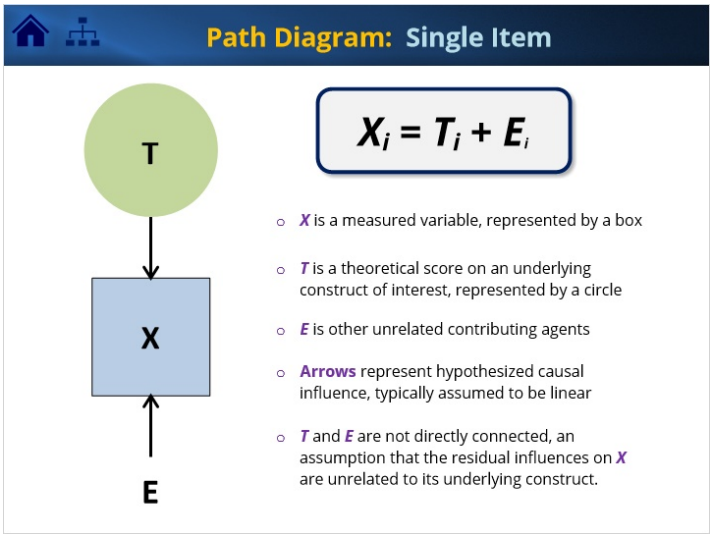
2.7 Goal Orientation Scale (II)



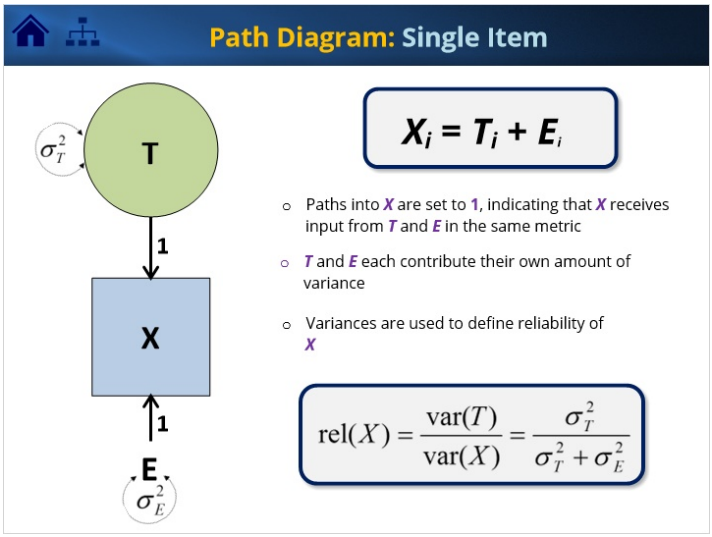
2.8 CTT Model



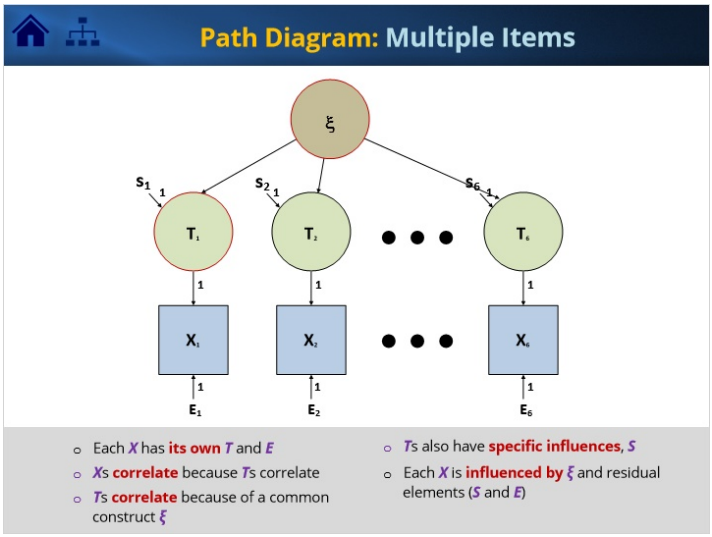
2.9 Path Diagram: Single Item (I)



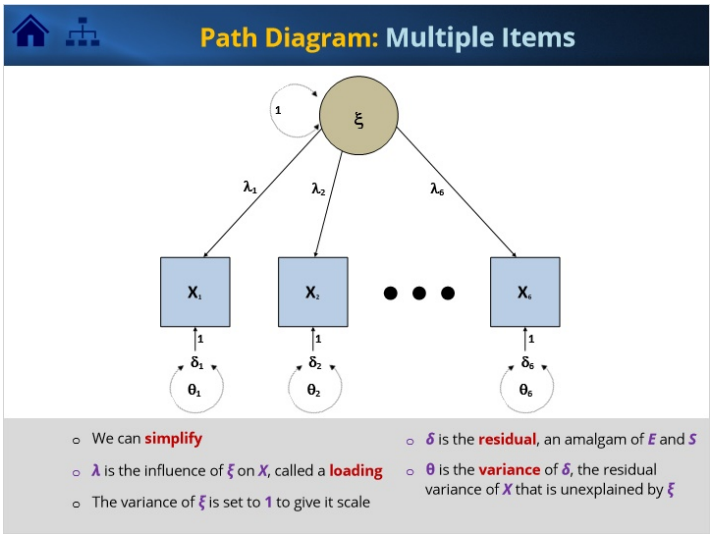
2.10 Path Diagram: Single Item (II)



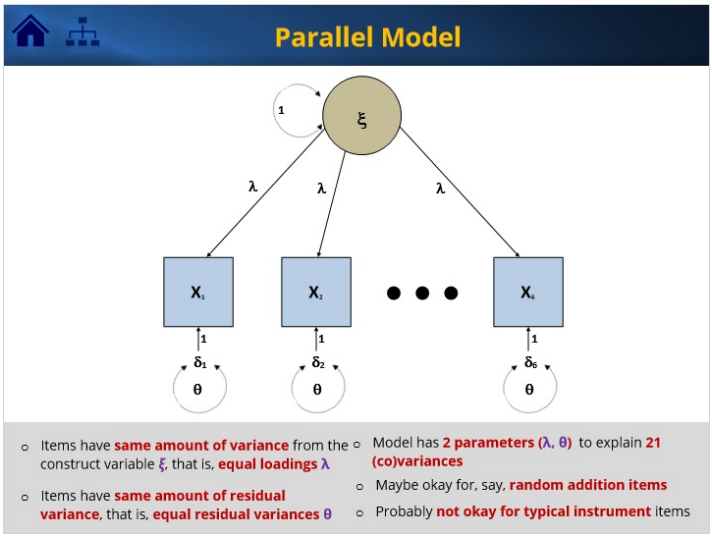
2.11 Path Diagram: Multiple Items (I)



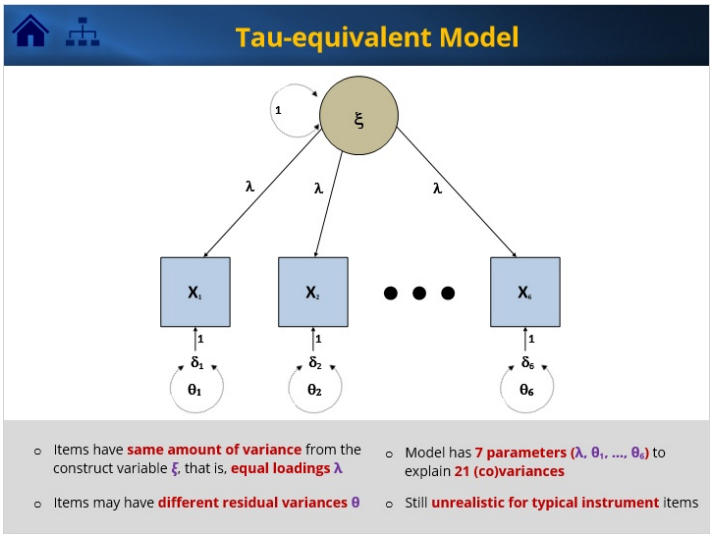
2.12 Path Diagram: Multiple Items (II)



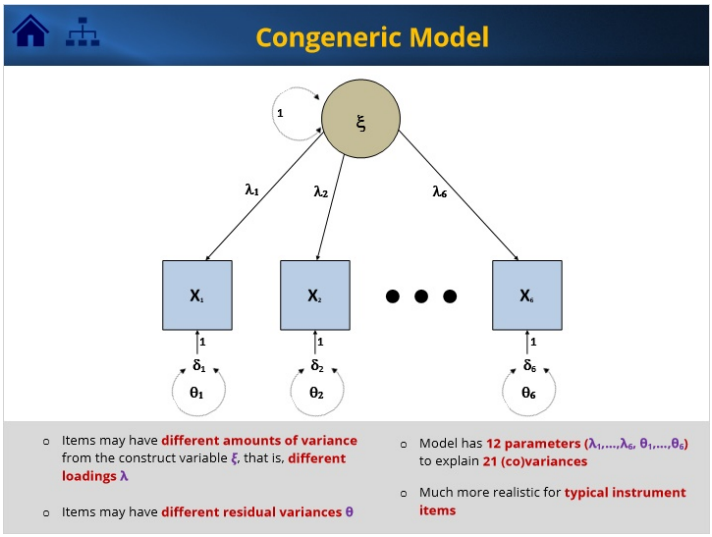
2.13 Parallel Model



2.14 Tauequivalent Model



2.15 Congeneric Model

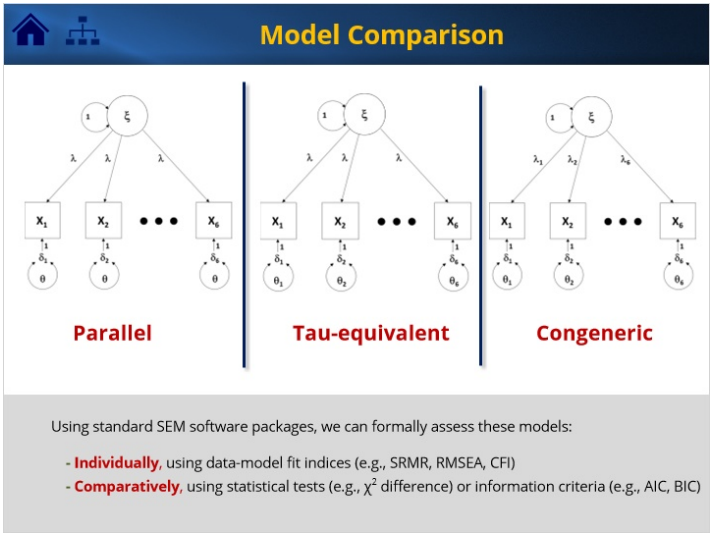


Untitled Layer 1 (Slide Layer)

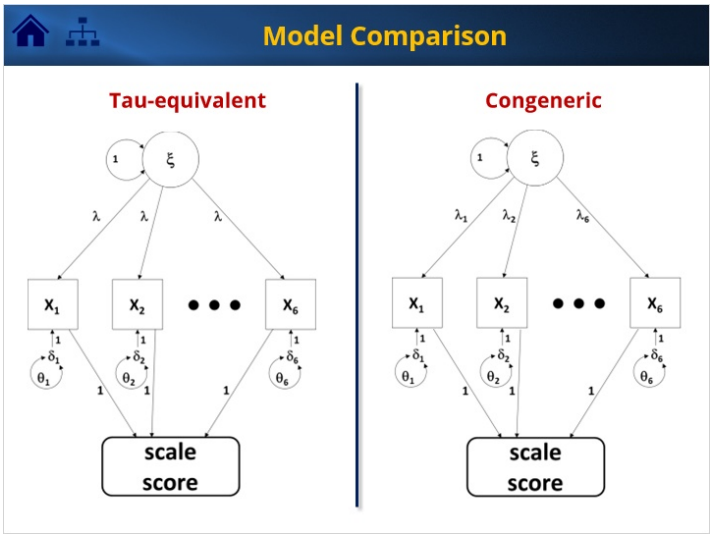
A Summary

	Loadings	Residual variances	Degree of freedom	Parameters
Parallel	equal	equal	19	2
Tau-equivalent	equal	different	14	7
Congeneric	different	different	9	12

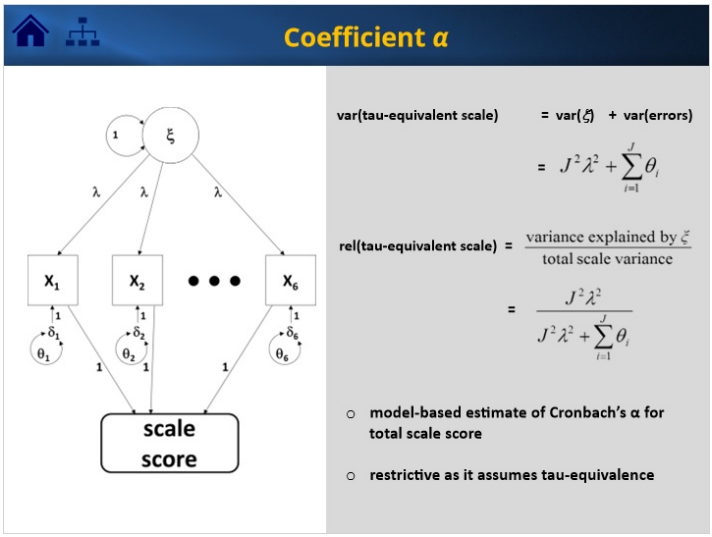
2.16 Model Comparison (I)



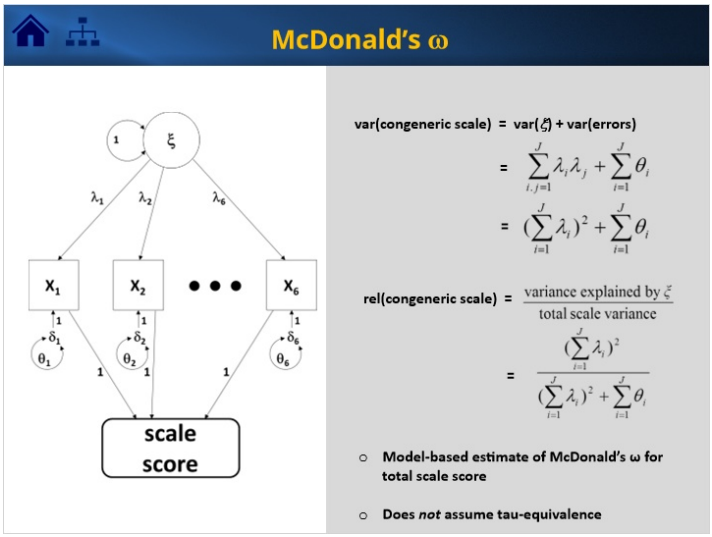
2.17 Model Comparison (II)



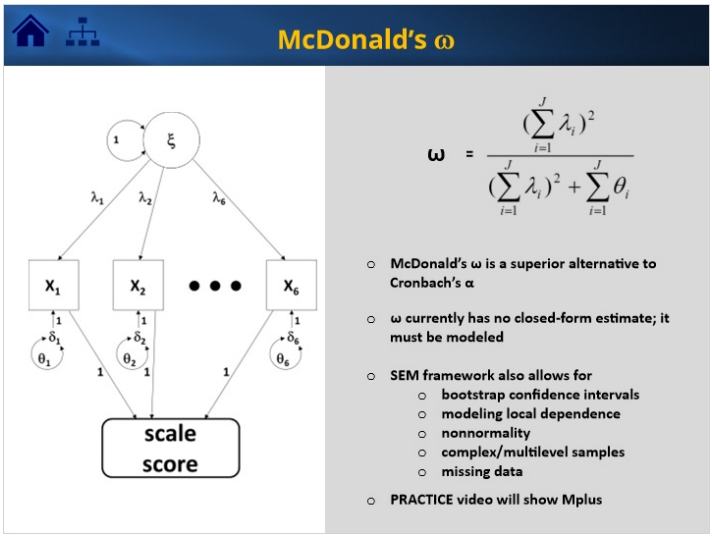
2.18 Coefficient Alpha



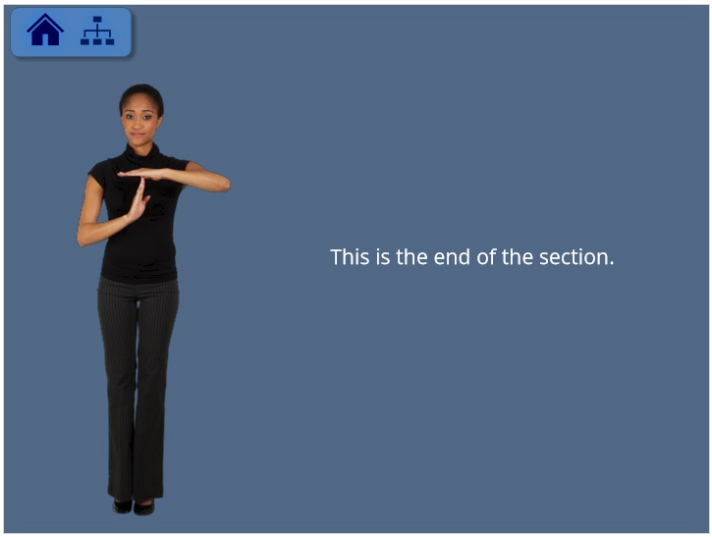
2.19 McDonald's Omega (I)



2.20 McDonald's Omega (II)

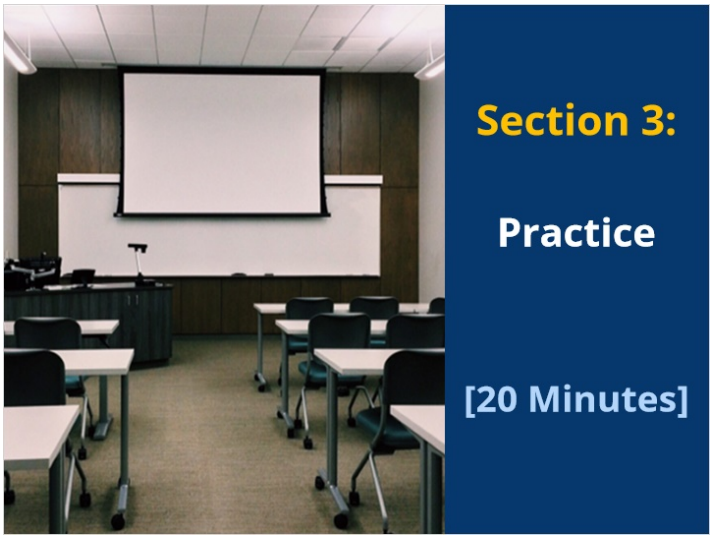


2.21 Bookend: Issues



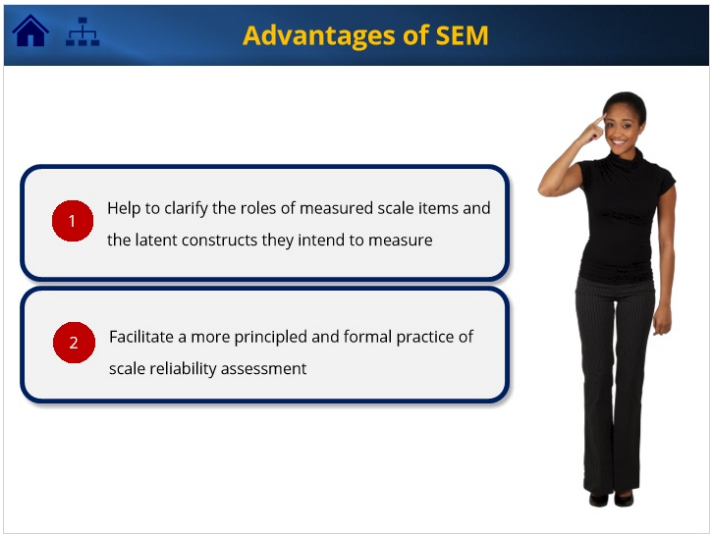
3. Section 3: Practice

3.1 Cover: Practice

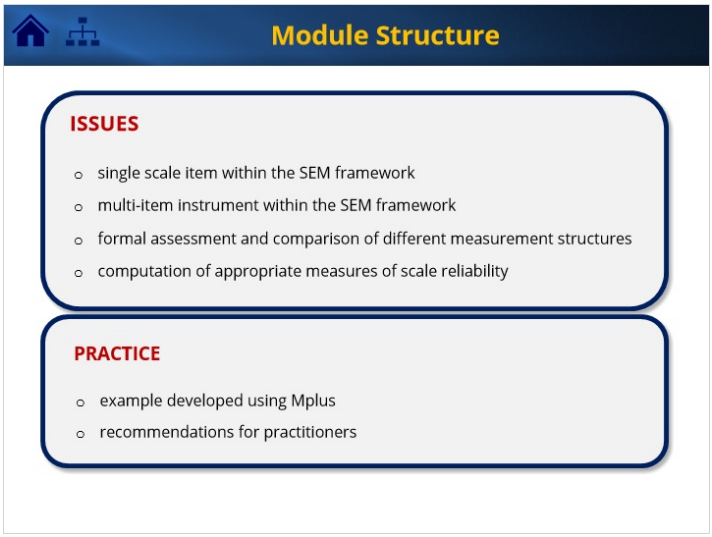


3.2 Objectives: Practice

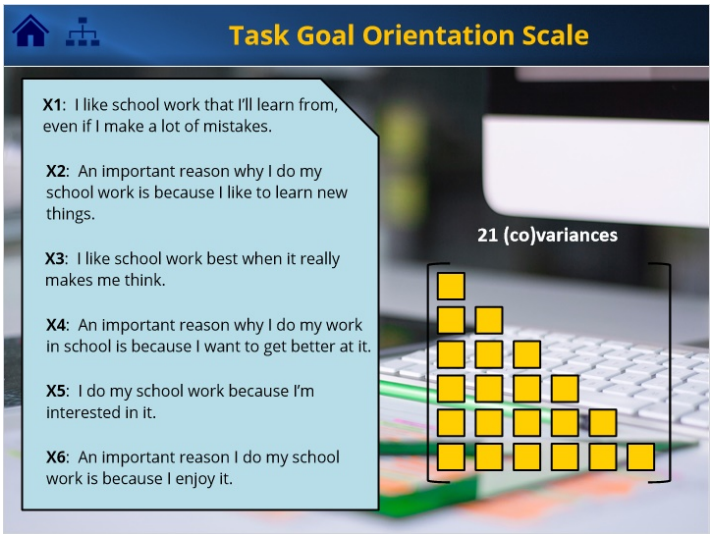
3.3 Intro to Practice (I)



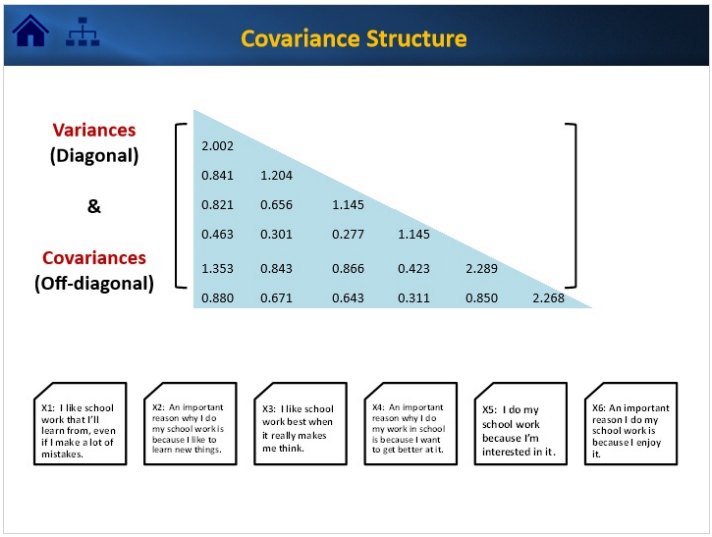
3.4 Intro to Practice (II)



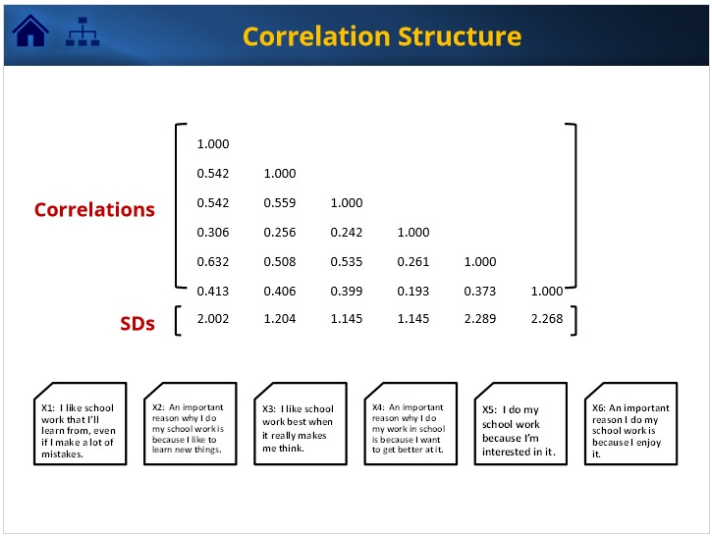
3.5 Task Goal Scale



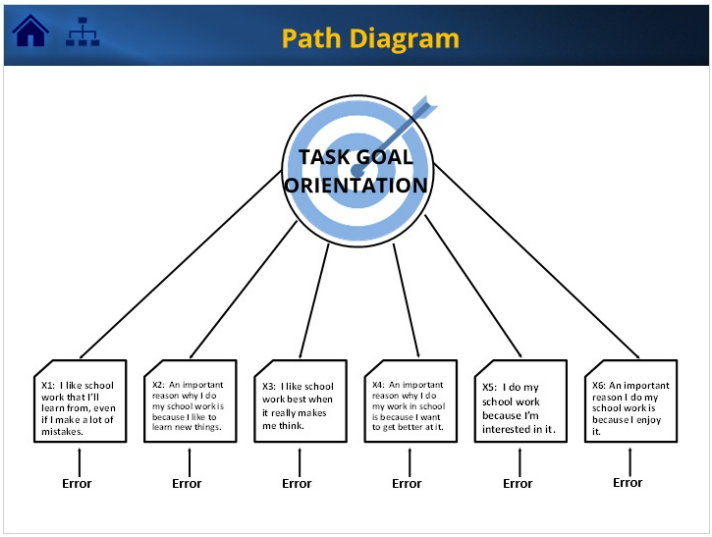
3.6 Covariance Structure



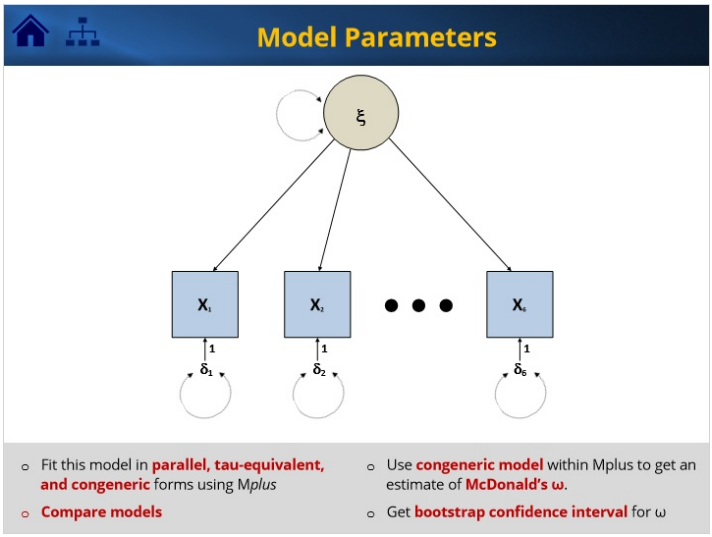
3.7 Correlation Structure



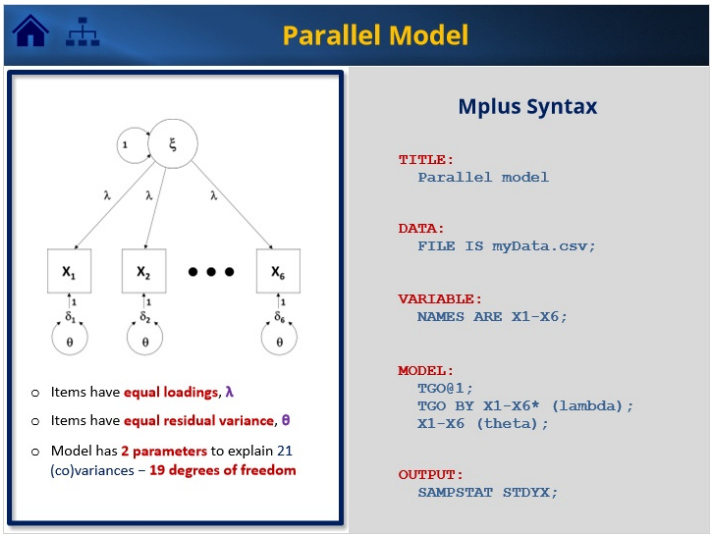
3.8 Path Diagram



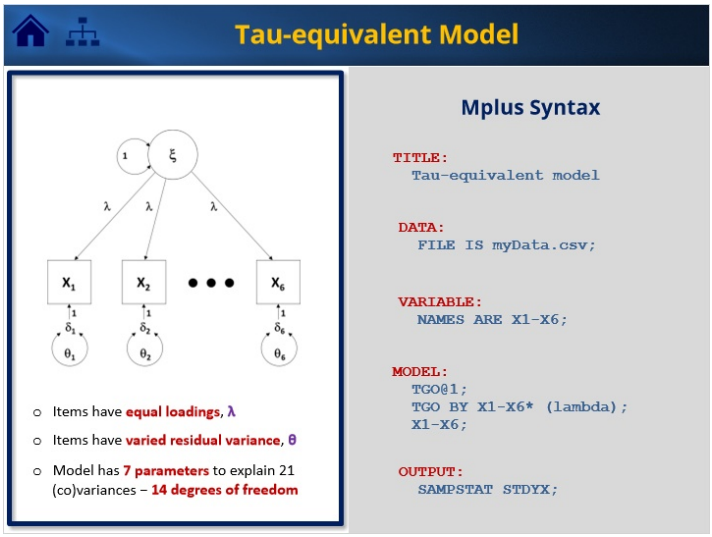
3.9 Model Parameters



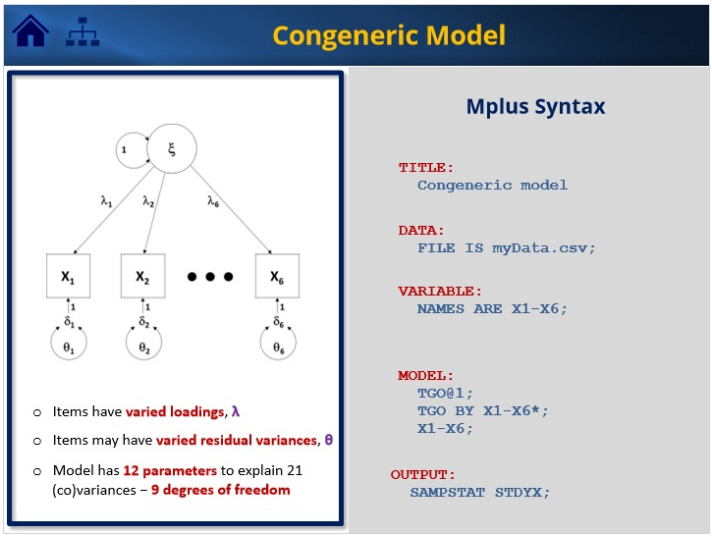
3.10 Parallel Model



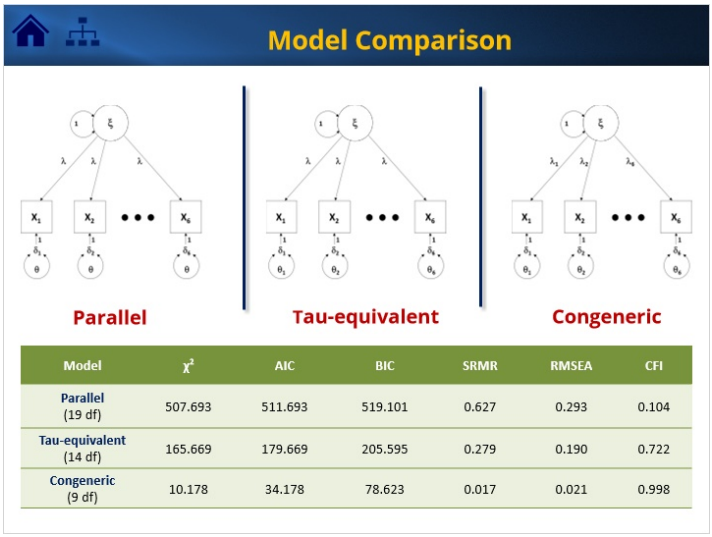
3.11 Tau-equivalent Model



3.12 Congeneric Model

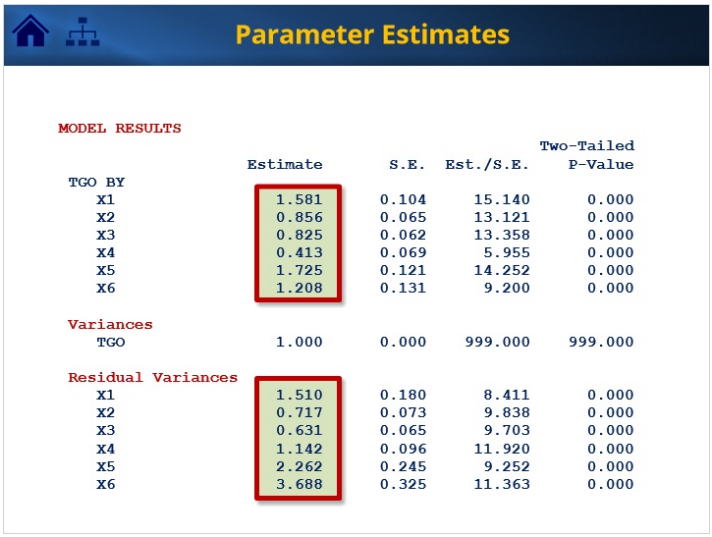


3.13 Model Comparisons

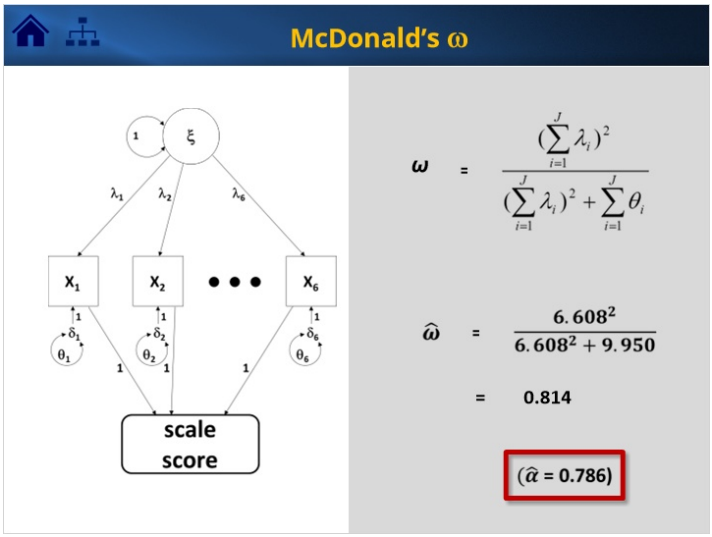


Model	χ^2	AIC	BIC	SRMR	RMSEA	CFI
Parallel (19 df)	507.693	511.693	519.101	0.627	0.293	0.104
Tau-equivalent (14 df)	165.669	179.669	205.595	0.279	0.190	0.722
Congeneric (9 df)	10.178	34.178	78.623	0.017	0.021	0.998

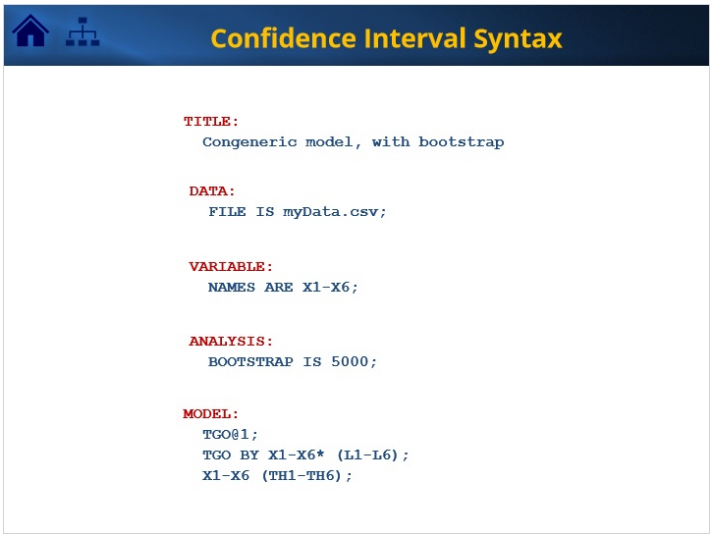
3.14 Parameter Estimates



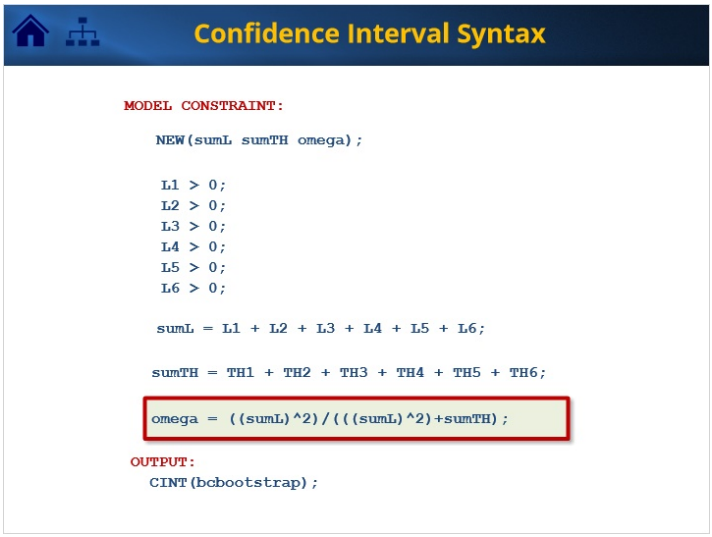
3.15 McDonald's Omega



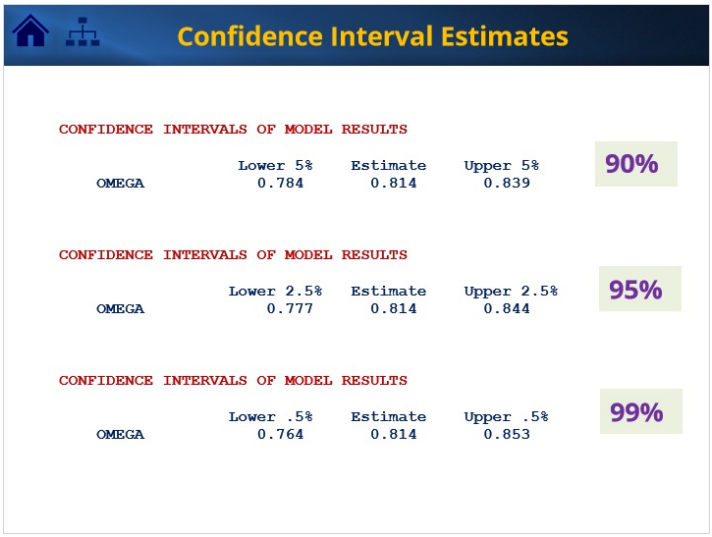
3.16 Confidence Interval (I)



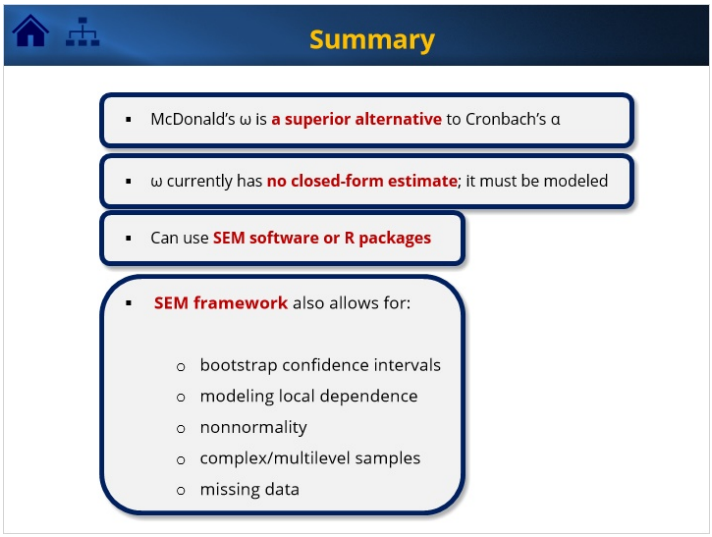
3.17 Confidence Interval (II)



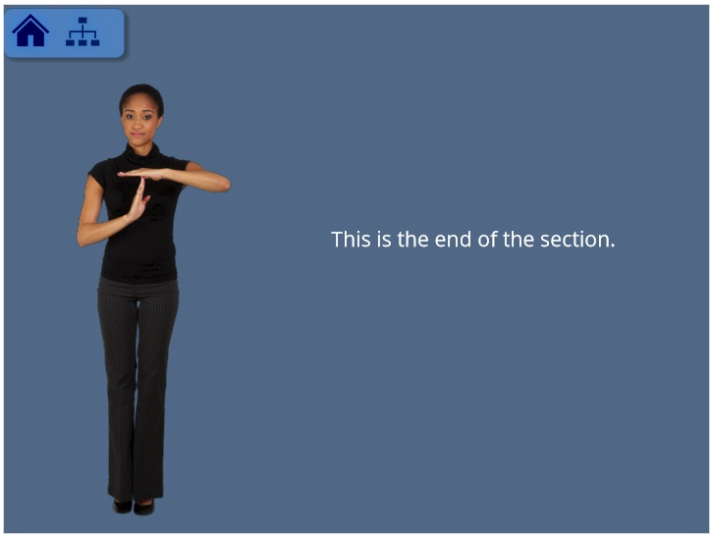
3.18 Confidence Interval (III)



3.19 Summary



3.20 Bookend: Practice



3.21 Module Cover (END)