

## **ISTAART Immersives: Measuring What Matters: Evaluating, Selecting and Developing Cognitive Outcome Measures using Advanced Psychometrics and Clinimetrics**

Friday, July 10, 2026 | 8 a.m. - 5 p.m.  
Arcadia — InterContinental — London, United Kingdom  
All times are in British Summer Time  
*In-person attendance only*

### **Overview**

The choice of an appropriate measurement instrument is a key issue in dementia research and clinical trials, both for optimizing diagnosis and measuring the effect of interventions. Here, a key question is whether the outcome measure can detect clinically meaningful change in the target population. This course aims to advance the quality of clinical outcome measures in dementia by equipping attendees with the skills needed to design and critically evaluate studies that assess the measurement quality of cognitive outcome measures. We will discuss (1) methods of assessing the properties of health measurement instruments used in dementia research; (2) how to apply those methods to develop new or evaluate existing measurement instruments; with the overall aim to (3) advance the quality of measurements and the ability to utilize data derived from those measures in analyses. This full-day workshop includes interactive lectures and assignments that provide hands-on training in applying advanced clinimetrics and psychometrics. The emphasis is on knowing “what to measure” and “how to measure” based on a detailed definition of the construct of interest and relevant conceptual models. We start with discussions of measurement theory such as classical test theory and item response theory. We focus on reliability, validity, and responsiveness, using specific use cases such as developing novel, digital cognitive assessments and measuring subjective cognitive decline. Attendees will then apply the discussed theoretical models to their own measurement instrument(s). Next, we will address the issue of missing data from cognitive outcome measures, a major source of bias in longitudinal aging and dementia studies. The last part of the workshop will provide the opportunity to join working groups on instrument development, digital assessments of objective and subjective cognitive functioning, or a hands-on session for statistical modeling and coding using the attendee’s own dataset.

### **Organizing Committee**

- Roos Jutten, PhD
- Sietske Sikkes, PhD
- Laura Rabin, PhD

## Target Audience

This ISTAART immersive workshop is designed for researchers at the beginner, intermediate, and advanced levels.

## Learning Objectives

- Describe the required steps for the evaluation of measurement instruments and apply these steps to cognitive outcome measure(s) for dementia research.
- Design studies on measurement properties and describe the terminology and criteria for measurement properties according to the COSMIN taxonomy.
- Select the most appropriate statistical methods for evaluating measurement properties, including approaches to handling missing data and eliminate bias in the estimation of cognitive decline, and advanced psychometric methods such as Item Response Theory.

## Registration

Pre-conferences are offered for in-person attendance only. Preconferences require a separate registration fee in addition to AAIC full conference registration, or they may be purchased as stand-alone events. Visit [alz.org/AAIC](http://alz.org/AAIC).

## Agenda: Friday, July 10, 2026 | 8 a.m. - 5 p.m.

Time	Session Details	Speakers and Moderator
8:30 a.m. - 9:00 a.m.	Walk-in	
9:00 a.m. - 10:00 a.m.	Lecture 1: Assessing psychometric properties of health measurement instruments using the COSMIN criteria	Sietske Sikkes, PhD and Roos Jutten, PhD
10:00 a.m. - 10:30 a.m.	Use Case 1: Remote assessment of cognition: use case(s) and measurement considerations	David Berron, PhD
<b>10:30 a.m. - 10:45 a.m.</b>	<b>Break</b>	
10:45 a.m. - 11:30 a.m.	Assignment 1: Apply COSMIN health measurement	

	instrument criteria to clinical outcome measures used in dementia	
11:30 a.m. - 12:00 p.m.	Use Case 2: Specifying and defining subjective cognitive decline using Ecological Momentary Assessments	Laura Rabin, PhD and Angel Garcia de la Garza, PhD
<b>12:00 p.m. - 1:00 p.m.</b>	<b>Lunch Break</b>	
1:00 p.m. - 1:45 p.m.	Lecture 2: Measuring what is missing: How to deal with missing data in longitudinal studies of aging	Cuiling Wang, PhD
1:45 p.m. - 2:30 p.m.	Use Case 3: Advanced Psychometrics to Harmonization - Lessons from the Alzheimer's Disease Neuroimaging Initiative	Seo-Eun Choi, PhD
<b>2:30 p.m. - 3:00 p.m.</b>	<b>Break and Group Photo</b>	
3:00 p.m. - 4:30 p.m.	Assignment 2: Small working groups	
4:30 p.m. - 5:00 p.m.	Wrap up & Closing Remarks	