AFLEARN DATAHUB

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Item Response Theory Literacy

Building Psychometric Literacy for Education and Policy in Africa

13 to 17 April 2026 | Online

About the African Foundational Learning Data Hub

The African Foundational Learning (AFLEARN) Data Hub is dedicated to African foundational learning data, measurement, research, and capacity building. The hub's mission is to enhance quality and capacity across the full data life cycle – from collection to impact.

Course Description

Psychometrics is a powerful but often inaccessible area of educational research—yet it underpins many of the tools, assessments, and policies shaping learning outcomes in Africa today. This short course is designed for education professionals who work with data but have limited formal training in measurement.

The course builds conceptual literacy in Item Response Theory (IRT) and foundational psychometric reasoning without requiring advanced mathematics. Participants will learn how psychometric tools are developed, how they influence fairness and comparability, and how they can be applied responsibly within the African context.

By blending theory, reflection, collaborative activities, and practical interpretation of outputs, this course equips participants to engage meaningfully with psychometric concepts and prepares them for a future applied course using real datasets.

Who should apply?

This course is ideal for:

- Education researchers, M&E practitioners, and analysts working with assessment data.
- Policy analysts interested in evidence-based decision-making and measurement quality.
- NGO and government professionals involved in designing, implementing, or interpreting educational assessments.
- Postgraduate students and academics seeking a grounding in psychometrics and IRT.

Course Structure

This short course is delivered over five consecutive days, blending foundational theory with practical interpretation, reflection, and collaborative activities. Each day is divided into a morning session focused on core concepts and an afternoon session focused on application, discussion, or hands-on exploration.

Course Objectives

By the end of this course, participants will be able to:

- Understand what psychometrics is and why it matters.
- Explain the purpose of models like IRT and how fairness, access, and context shape their usefulness.
- Recognize where psychometric reasoning fits into the evidence cycle.
- Identify how measurement strengthens assessment design, analysis, and policy interpretation.
- Build conceptual understanding of Classical Test Theory (CTT).
- Understand reliability, validity, and the limits of test-level thinking.
- Develop foundational literacy in Item Response Theory (IRT).
- Interpret basic item parameters and explain how IRT improves precision and comparability.
- Interpret and communicate IRT results responsibly.
- Translate technical outputs into accessible insights for stakeholders and identify ethical considerations.
- Engage with ethical and contextual issues in measurement.
- Consider equity, representation, and the African assessment landscape.
- Synthesize learning through reflection and collaboration.
- Connect psychometric principles to real educational problems and articulate pathways for continued learning.

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Lead Facilitator

Tamlyn Lahoud is a PhD candidate at the University of Georgia in the Quantitative Methodology program. She completed her MSc in Statistics at Rhodes University where she became interested in Item Response Theory. Her research applies and extends psychometric models to integrate multimodal data, offering deeper insight into students' skills, misconceptions, and response behaviors. She also develops methodological innovations to strengthen model precision in small-sample and adaptive testing contexts. Her work is grounded in a commitment to develop data-driven tools and measurement approaches that promote equity, support evidence-based decision making, and enhance teaching and learning across diverse educational contexts.

Prerequisites

- No prior experience in psychometrics or advanced statistics is required.
- A basic familiarity with educational data is helpful but not essential.

How to apply

- Complete the application form by **15 February 2026.**
- Spaces are limited, and successful applicants will be notified. .
- For questions, contact us at datafirst@uct.ac.za